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OEL
Maintenance Manual

MC351/MC361/MC561/ ES3451/ES3451

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PREFACE

This manual explains the maintenance methods of MC561/MC361/MC351/ES5461/ES3461/ES3451/CX2731.

This manual is prepared for the maintenance person. In regard to the handling methods of MC561/MC361/MC351/ES5461/ES3461/ES3451/CX2731, please refer to the User's Manual.

Note!
- Contents of this manual is subject to change without notice.
- While all reasonable efforts have been made to make this document as accurate and helpful as possible, we make no warranty of any kind, expressed or implied, as to the accuracy of the information contained herein. Oki Data assumes no responsibility to the damages caused or claimed to have been caused by the user as a result of repair, adjustment and/or change using this manual.
- Parts of this product are delicate and can be damaged unless properly handled. We strongly recommend the user to maintain the product at the hand of the registered maintenance person of our company
- Before starting the maintenance work, please neutralize the static electricity.

⚠Warning	
⚠	Battery of the printer need not to be replaced. Do not touch the battery. Replace the whole board to replace the SU board. Installation of another type batteries may result in explosion. Caution for used batteries are as follows; do not recharge, force open, heat or dispose of in fire.

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1. CONFIGURATION

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1.1 System configuration

System Configurations of the MFP Unit.

The system configuration of this product is shown in Figure 1-1.

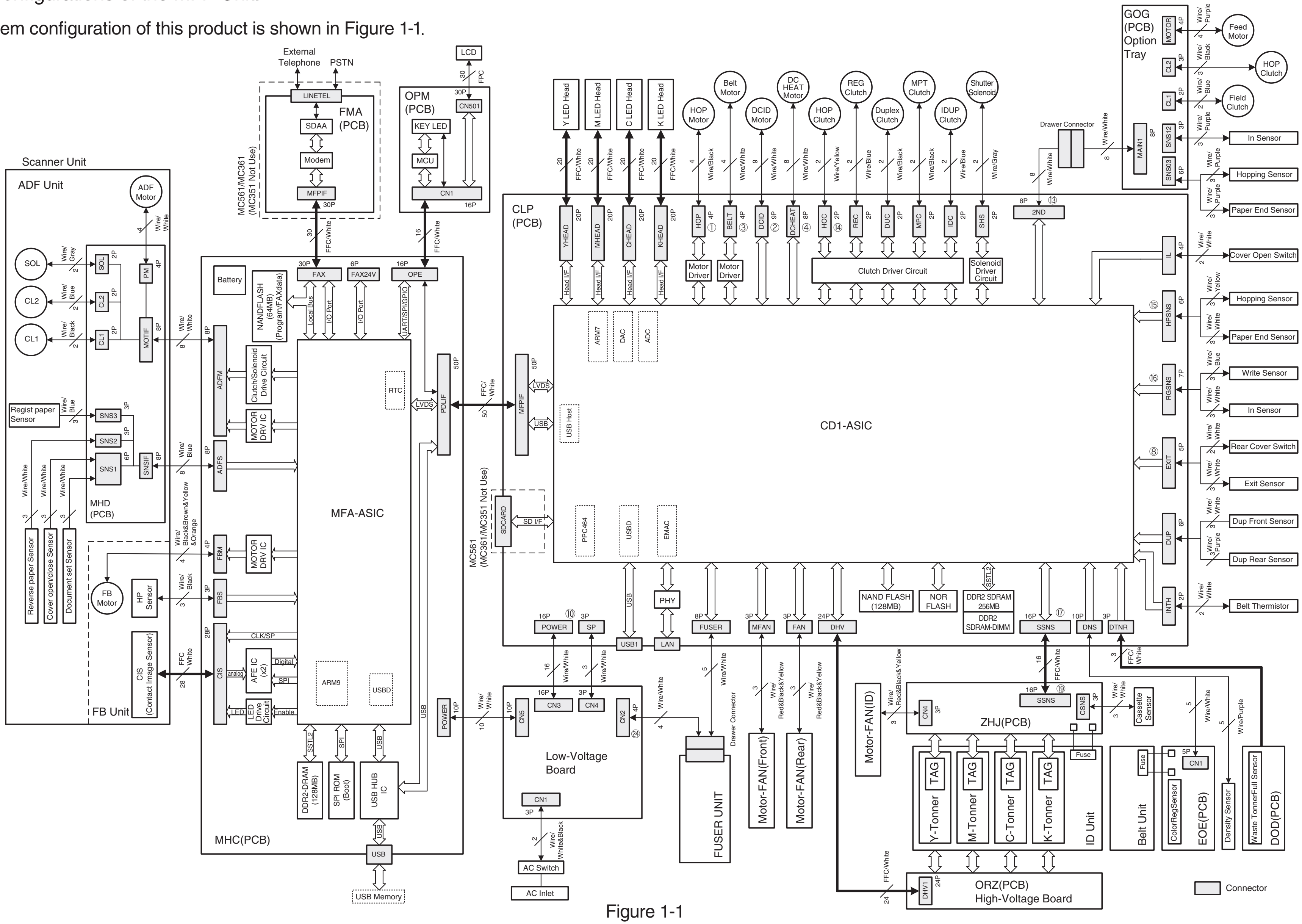

Scanner Unit
ADF Unit
ADF Motor
SOL
CL2
CL1
PM
MOTIF
SNSIF
SNS1
SNS2
SNS3
MHD (PCB)
Regist paper Sensor
Reverse paper Sensor
Cover open/close Sensor
Document set Sensor
FB Unit
FB Motor
HP Sensor
CIS (Contact Image Sensor)
External Telephone
PSTN
MC561/MC361 (MC351 Not Use)
LINETEL
FMA (PCB)
SDAA
Modem
MFPIF
LCD
OPM (PCB)
KEY LED
MCU
CN1
CN501
FPC
FFC/White
Battery
NANDFLASH (64MB) (Program/FAXdata)
FAX
FAX24V
OPE
Local Bus
I/O Port
UART/SPI/GPIO
ADFM
ADFS
FBM
FBS
CIS
Clutch/Solenoid Drive Circuit
MOTOR DRV IC
AFE IC (x2)
LED Drive Circuit
CLK/SP
analog
Digital
SPI
Enable
MFA-ASIC
RTC
LVDS
PDLIF
ARM9
USBD
POWER
DDR2-DRAM (128MB)
SPI ROM (Boot)
USB HUB IC
SSTL2
USB
USB Memory
MHC(PCB)
CLP (PCB)
MFPIF
USB Host
MC561 (MC361/MC351 Not Use)
SDCARD
SD I/F
Y LED Head
M LED Head
C LED Head
K LED Head
YHEAD
MHEAD
CHEAD
KHEAD
Head I/F
HOP Motor
Belt Motor
DCID Motor
DC HEAT Motor
HOP Clutch
REG Clutch
Duplex Clutch
MPT Clutch
IDUP Clutch
Shutter Solenoid
HOP
BELT
DCID
DCHEAT
HOC
REC
DUC
MPC
IDC
SHS
Motor Driver
Clutch Driver Circuit
Solenoid Driver Circuit
ARM7
DAC
ADC
CD1-ASIC
PPC464
USBD
EMAC
PHY
USB1
LAN
FUSER
MFAN
FAN
DHV
NAND FLASH (128MB)
NOR FLASH
DDR2 SDRAM 256MB
DDR2 SDRAM-DIMM
SSNS
DNS
DTNR
2ND
Drawer Connector
GOG (PCB) Option Tray
MOTOR
CL2
CL1
SNS12
SNS03
MAIN1
Feed Motor
HOP Clutch
Field Clutch
In Sensor
Hopping Sensor
Paper End Sensor
IL
Cover Open Switch
HPSNS
Hopping Sensor
Paper End Sensor
RGSNS
Write Sensor
In Sensor
EXIT
Rear Cover Switch
Exit Sensor
DUP
Dup Front Sensor
Dup Rear Sensor
INTH
Belt Thermistor
Low-Voltage Board
CN1
CN2
CN3
CN4
CN5
AC Switch
AC Inlet
FUSER UNIT
Drawer Connector
Motor-FAN(Front)
Motor-FAN(Rear)
Motor-FAN(ID)
ZHJ(PCB)
CN4
CSNS
Cassette Sensor
Fuse
TAG
Y-Tonner
M-Tonner
C-Tonner
K-Tonner
ID Unit
Belt Unit
ColorRegSensor
EOE(PCB)
Density Sensor
Waste TonnerFull Sensor
DOD(PCB)
ORZ(PCB) High-Voltage Board
DHV1
Connector
Wire/White
Wire/Black
Wire/Blue
Wire/Gray
Wire/Yellow
Wire/Purple
Wire/Black&Brown&Yellow &Orange
Wire/Red&Black&Yellow
Wire/White&Black
FFC/White
① ② ③ ④ ⑧ ⑩ ⑬ ⑭ ⑮ ⑯ ⑰ ⑲ ㉔

Figure 1-1

1.2 Structure of MFP

The insides of MC561/MC361/MC351/ES5461/ES3461/ES3451/CX2731 multi function printers are composed of the following parts.

- Scanner part
- Electronic photography process part
- Paper path
- Control part (CU part/PU part)
- Power supply parts (high voltage part/low voltage part)

Figure 1-2 shows the composition of the MFP.

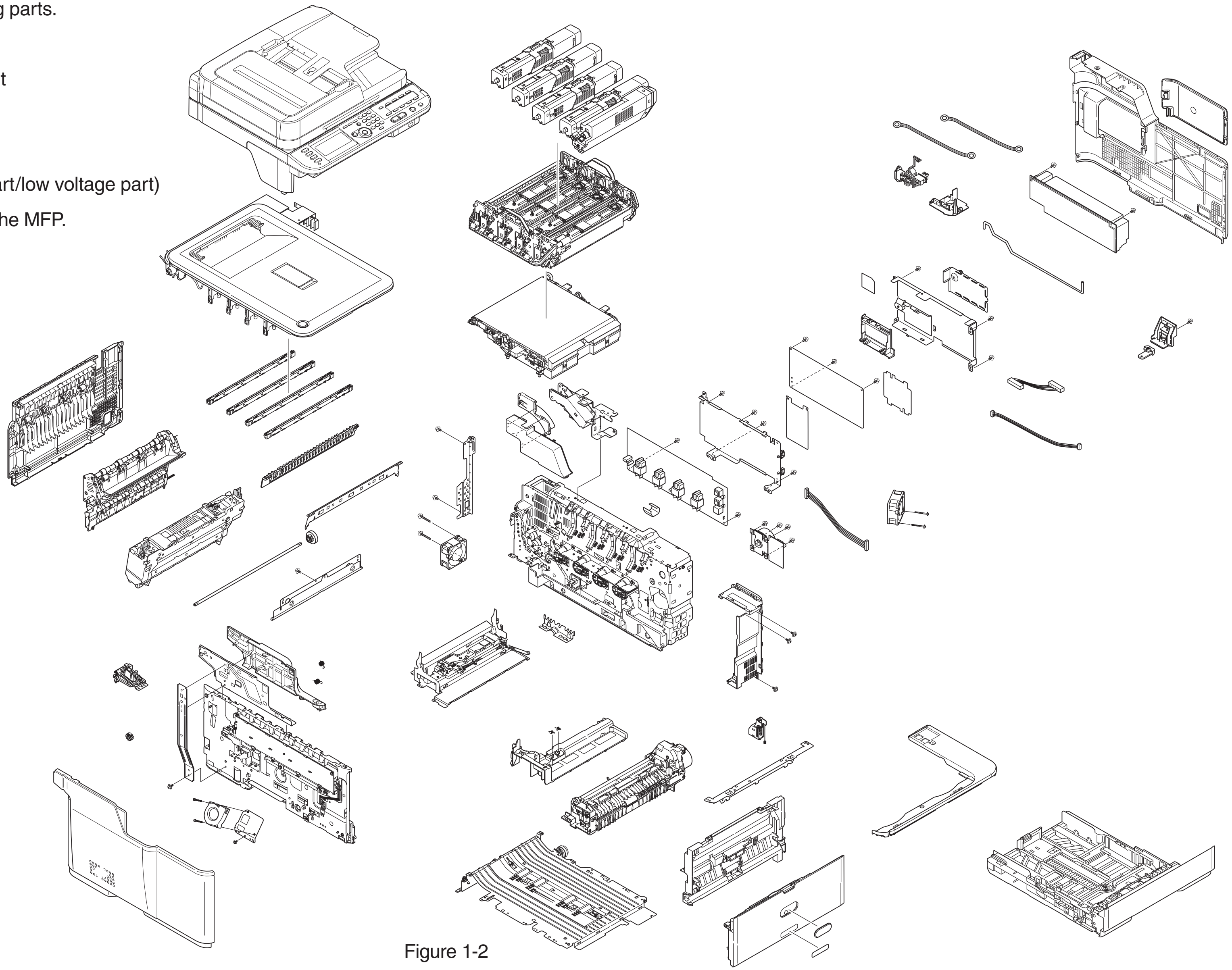
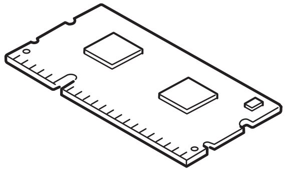


Figure 1-2

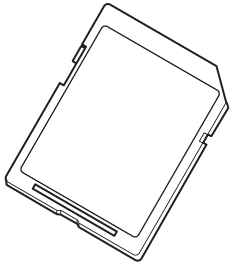
1.3 Offer of Options

This product can be installed with the following option.

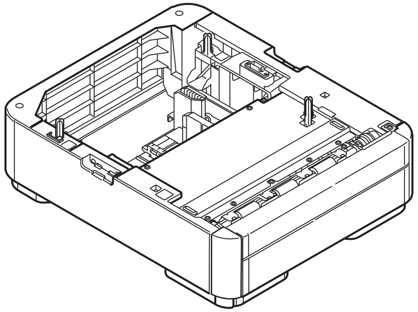
(1) Additional memory board 256MB/512MB.



(2) SD memory Card 16GB (for MC561 only).



(3) Second Tray Unit



1.4 Specifications

Fundamental specifications

Category	Item	MC351	MC361	MC561
Outside dimensions	Width	427mm		
	Depth	509mm		
	Height	444mm		
Weight		Approx. 29kg		
CPU CU	Power PC			
RAM CU	Resident	256 MB		
	Option	256 MB/512 MB		
ROM CU	Program	NOR 2.5MB NAND 128MB		
Control Panel	LCD	Single simplified graphics panel Size : 84.1mm (W) x 33.6mm (H) Resolution : 320 dot x 128 dot		
	Basic Keys	Ten key, color start key, monochrome start key, stop key, power save key and others		
	Qwerty keyboard	No		Yes
Operation sound	Operating	52dB (Sound pressure level)		54dB (Sound pressure level)
	Standby	37dBA (Sound pressure level)		
	Power save mode	Inaudible		
Power consumption	Power input	110-127VAC (Range 99-140VAC) 220-240VAC (Range 198-264VAC)		
	Deep sleep mode	1.2W	1.5W	
	Power save mode	20W		
	Idle	100W		
	Typical operation	500W		570W
	Peak	1170W		
Operating environment (temperature)	During operation	10 °C to 32 °C,17 °C to 27 °C (Full color print quality assurance temperature)		
	During non-operation	0°C - 43°C, Power OFF		
	During storage (Maximum one year)	-10°C to 43°C, with drum and toners		
	During transportation (Maximum one month)	-30°C - 50°C, with drum, without toners		
	During transportation (Maximum one month)	-30°C to 50°C, with drum and toners		
Operating environment (humidity)	During operation	20% - 80%, 50% - 70% (Full color print quality assurance humidity), Maximum wet-bulb temperature 25°C		
	During non-operation	10% - 90%, Maximum wet-bulb temperature 26.8°C, power OFF		
	During storage	10% - 90%, Maximum wet-bulb temperature 35°C		
	During transportation	10% - 90%, Maximum wet-bulb temperature 40°C		
Emulation	Standard	PCL6 (XL3.0 and PCL5c), PostScript 3, SIDM (IBM-PPR, EPSON-FX)		
	Emulation switch	Automatic		
Factory default setting	ODA, OEL, AOS	PDL model		
Others	USB-IF logo	Yes		
	Windows logo	Yes		
	Operations on UPS	Operations on UPS (uninterruptible power supply) are not guaranteed. Do not use UPS.		
CPU SU	ARM			
RAM SU	Resident	128 MB		
	Option	None		
ROM SU	Program	NOR 8MB NAND 64MB		

Printer section specifications

Category	Item		MC351	MC361	MC561
Print width	Print width		A4 horizontal		
Engine speed (A4)	Monochrome		24ppm		30ppm
	Duplex Mono		13ppm		16ppm
	Color		22ppm		26ppm
	Duplex Color		12ppm		14ppm
First print out time (A4)	Monochrome		8.5sec		7.5sec
	Color		9sec		8sec
Warm-up time	From Power On with calibrations		Less than 60sec		
	From Power save		Less than 32sec		
Resolution	LED head		600 x 600 dpi		
	Maximum input resolution		600 x 1200dpi		
	Output resolution		True 600 x 1200dpi x 1bit True 600 x 600dpi x 1bit True 600 x 600dpi x 2bit		
	Gradation		4 gradation 600 x 600 dpi		
	Echono mode		Toner save by low brightness		
Life	Printer life		300K		420K
	Maximum Monthly Print Volume when Continuous Print		45K/M		60K/M
	MTBF		6,000H		
	MPBF		50K		
	MTTR		Less than 20 min.		
	Toner life (ISO/IEC 19798)	Starter toner (supplied)	C, M, Y, K : 1K		C, M, Y, K : 2K
		Standard	C, M, Y : 2K (OEL/AOS (1byte)), 3K (other) K : 2K/3.5K (AOS (1byte)), 3.5K (other)		
		High-Yield	No		C, M, Y, K : 5K

Category	Item	MC351	MC361	MC561
Life	Image drum life	Continuous 30K 3P/J 20K 1P/J 15K		
	Transfer belt life	60,000 pages		
	Fuser life	60,000 pages		
Paper handling	Feed paper capacity (1st tray)	280 sheets of 64g/m^2 (55Kg) plain paper, 25mm or less in total thickness		
	Feed paper capacity (manual feeder)	110 sheets of 64g/m^2 (55Kg) plain paper,10mm or less in total thickness, 40 postcards, 10 envelopes of 85g/m^2 paper		
	2nd Tray Option	580 sheets of 64g/m^2 (55Kg) plain paper, 53mm or less in total thickness		
	Paper unloading	Face up: Approx.110 sheets of 64g/m^2 (55Kg) plain paper Face down: Approx.150 sheets of 64g/m^2 (55Kg) plain paper		
Paper size	1st/2nd tray	Legal13/13.5/14, Letter, Executive, A4, A5, B5, A6, Japanese Postal Card, 16K(197 x 273, 195 x 270, 184 x 260) : A6 and Japanes post card cannot be used in tray 2.		
	Multi purpose tray	Legal13/13.5/14, Letter, Exective, A4, A5, B5, A6, C5, DL, Com-9, Com-10, Monarch, Index Card (3x5inch), Photo Size (4 x 6inch/5 x 7inch), CustomSize, Banner up to 52", 16K (184 x 260mm), 16K (195 x 270mm), 16K (197 x 273mm)		
	Duplex	Legal13/13.5/14, Letter, Exective, A4, A5, B5, 16K (184 x 260mm), 16K (195 x 270mm), 16K (197 x 273mm)		
	Banner Support	Yes(~52"(1321mm))		
	Custom	64x148~215.9 x 1200 (mm)		

Category	Item	MC351	MC361	MC561
Minimum paper size	Tray 1	4.1" x 5.8" (105 x 148mm : A6), 100 x 148mm (Post Card size)		
	Tray 2 (option)	5.8" x 8.3" (148 x 210mm : A5)		
	MPT	3" x 5" (Index Card)		
	Duplex	5.8" x 8.3" (148 x 210mm : A5)		
Paper thickness	Tray 1	64 – 176 g/m^2		
	Tray 2 (option)	64 – 176 g/m^2		
	MPT	64 – 220 g/m^2		
	Duplex	64 – 176 g/m^2		
Status switch/sensor	Paper out	Yes		
	Paper low	None		
	Toner low	Yes (Y, M, C, K)		
	Cover open	Yes		
	Fuser temperature	Yes		
	Paper size	None		
	Stacker full	None		
Font	Bitmap type face	LinePrinter USPS		
	Scalable 1 type face	Mono Type		
	Scalable 2 type face	Mono Type		
	Scalable 3 type face	Mono Type		
	Rasterizer	Mono Type		
	Barcode	12 types computational		
	OCR.	OCR-A, B		

Scanner section specifications

Item		
Scanner type		Flat bed scanner with automatic document feeder device (RADF)
Image processor/Controller		MFA
Image sensor		Color CIS
Light source		LED
Optical resolution		1200 x 1200dpi
Output resolution		600 x 600dpi, 300 x 300dpi, 300 x 600dpi
Input level (A/D conversion)		48 bits (R,G, B, each 16 bits)
Output level		24 bits (R,G,B, each 8 bits) color, 8 bits grayscale, 4 bits CMYK,.1 bit monochrome
Document size	Flat bed	4.13 x 5.8~8.5 x 11.69in (105 x 148~215.9 x 296.6mm)
	ADF	50 sheets (80 g/m^2)
Document thickness	Flat bed	20mm
	RADF	Simplex : 16~28lb (60~105g/m^2) Duplex : 16~24lb (60~90g/m^2)
Maximum scanning range	Flat bed	Maximum 215.9 x 296.9mm
	RADF	4.13 x 5.8~8.5x 14in (105 x 148~215.9x355.6mm)
Scanning speed		Color : Approx. 3 sec/page (A4, 300 x 300dpi, Flatbed/ADF simplex) Mono : Approx. 2 sec/page (A4, 300 x 300dpi, Flatbed/ADF simplex) (note) Data transfering time is not included
Warm-up time		Less than 1 sec.
Life	MTBF	5,000H
	MTTR	Less than 20 min.
	Flat bed	5 years or 50,000 times of scan
	RADF	5 years or 240,000 sheets (single-sided scan)
Attachment file format		PDF (JPEG Compressed), M-TIFF (RAW/ G3/ G4 Compressed), JPEG (JFIF), XPS
Supported driver		MC351: TWAIN Scanner driver (USB, Network) MC361/MC561: TWAIN Scanner driver (USB, Network), Fax Modem driver (Windows only)

Network specifications

Item	
Connection	Ethernet 10BaseT/100BaseTX automatic negotiation
Communication protocol	TCP/IP V4, TCP/IP V6, LPR, Port9100, IPP, FTP, SMTP, POP3, HTTP, HTTPS, Telnet, NetBIOS over TCP, SNMP Trap, SNMPv1, SNMPv3, DHCP/BOOTP, DNS,DDNS, WINS, SLP, UPnP, Bonjour, SNTP, ODNSP, SMB, CIFS, Q-Server over IP, Q-Server over IPX, R-Printer, N-Printer, NCP, PAP, NBP, LDAP, Kerberos
Supported browser	Microsoft Internet Explorer Ver. 6.0 or higher Safari 2 or higher Firefox 3 or higher
Required setup information, configuration and others	IP address, sub net mask, gate way, SMTP/POP3 server, FTP server, Web server
Output/Input switch	Automatic

Copy function

Categories		Specs
Copy Resolution		Scan: 300x600dpi / 600x600dpi
		Print: 600x600dpi / 600x1200dpi(color only)
Document Size	Flatbed	A4, A5, A6, B5, Executive, Letter
	RADF	A4, A5, A6, B5, Executive, Letter, Legal13, Legal13.5, Legal14
Number of Copies		1 ~ 99
Collate(Sort)		ON/OFF
Zoom (Auto is spported)	Custom	25 ~ 400%, to scale by 1%.
	Preset	70% (A4 → A5) 78% (Leg14 → Let) 81% (Leg13.5 → Let) 84% (Leg13 → Let) 86% (A4 → B5) 94% (A4 → Let) 97% (Let → A4) 98% (Fit to page) 100% Auto (Document Size and Tray are specified) 115% (B5 → A4) 141% (A5 → A4)
Edge Erase	Set	ON, OFF
	Erase Width	2~50mm (increments of 1mm) 0.1~2.0 inch (increments of 0.1 inch)
Margin shift		Front Left/Top: 0 ~ ±25 mm 0.0~±1.0 inch (1mm/Step) Back Left/Top: 0 ~ ±25 mm 0.0~±1.0 inch (1mm/Step)
N-up	Document pages	OFF, 2-in-1, 4-in-1 Vertical, 4-in-1 Horizontal
ID Card Copy [ID Card Copy]		OFF, ON
Repeat Copy		OFF, 2 times, 4 times
Poster Copy		N/A
Document Direction		Portrait, Landscape

Categories		Specs
Duplex Copy	Method	OFF, 1 sided → 2 sided Long Edge 1 sided → 2 sided Short Edge 2 sided → 2 sided 2 sided Long Edge → 1 sided 2 sided Short Edge → 1 sided
Binding Position		Long Edge, Short Edge * This can be set when the N-up or Repeat setting.
Mixed Size		OFF, ON The only available size combinations are Letter + Legal 13.5 and Letter + Legal14.
Job build scanning		OFF, ON
Banner Copy		N/A
Color/Mono		Selected by User by Hard Key.
Copy image quality adjustment		Background Removal, Density, Contrast, Saturation, Hue, RGB adjustment.

Copy Image Adjustments

Item	Setting	Description
Color/Mono	Color/Mono Hard Key	Selects Color Copy/Mono Copy
Document type	**Text/Photo**, Text, Photo, Glossy Photo	Allows the user to select the type of images on the document and optimizes the image quality for the image to be scanned according to the selected type. With "Background Removal/Show-through Cancellation" selected, their levels can be adjusted.
Resolution	**Normal**, High Quality	
Background Remove	OFF, 1 ~ **3** ~ 6	Blocks out the color background of the image (assuming document has a color background) so that the background color is not printed.
Density	-3 (Light) ~ **0** ~ + 3 (Dark)	Adjusts the darkness of images.
Contrast	-3 (Low) ~ **0** ~ +3 (High)	Adjusts the difference between the light and dark areas of an image.
Saturation	-3 (Low) ~ **0** ~ +3 (High)	Adjusts the sharpness of an image. Adjusts on seven levels: -3 (Lowest) ~ 0 ~ +3 (Highest).
Hue Adjustment	-3 (Red) ~ **0** ~ +3 (Green)	Adjusts the balance between Red and Green with Yellow in the middle on 7 levels: -3 (Red) ~ 0 ~ +3 (Green).
RGB Adjustment	RGB per color -3 (Low) ~ **0** ~ +3 (High)	Adjusts the contrast among Red/Green/ Blue.

ScanTo Common Specification

Items		FX750	Supplement
Document Type		Text, Text/Photo, Photo, Glossy Photo	Allows the user to select the type of images on the document and optimizes the image quality for the image to be scanned according to the selected type.
Background Removal		OFF, 1, 2, 3, 4, 5, 6	Blocks out the color background of the image (assuming document has a color background) so that the background color would not be printed.
Density		-3, -2, -1, 0, +1, +2, +3	Adjusts the darkness of images.
Resolution	Color	75, 100, 150, 200, 300, 400, 600dpi (400/600 can be set only for FB)	The resolution in which a document is scanned is selected *1
	Mono (Grayscale)	75, 100, 150, 200, 300, 400, 600dpi	
	Mono (2 levels)	75, 100, 150, 200, 300, 400, 600dpi	
Scan size (Document Size)		A4, Letter, Legal14, Legal13, Legal13.5, Executive, A6*2, A5, B5	Default Size is browsed, and if it is A4, AB-based sizes are placed higher in the operator panel display and if it is Letter, Letter-based sizes are.
Duplex Scan		OFF, Long Edge Binding, Short Edge Binding	Scans the images on front and back sides by launching Scan once.
Job Build Scanning		ON, OFF	Allows constructing a single scan job from multiple individual images on the documents.
Edge Erase	Settings	ON, OFF	Allows blocking out the peripheral area of the document (erasing the areas where spurious shadows and borders may occur).
	Width	5 ~ 50mm (in 1mm) 0.2 ~ 2.0 inch (In 0.1 inch)	[Not supported if Scan jobs are from PC via TWAIN]

Items			FX750	Supplement
Contrast			-3, -2, -1, 0, +1, +2, +3	Adjusts the difference between the light and dark areas of an image.
Saturation Adjustment (In Color mode only)			-3, -2, -1, 0, +1, +2, +3	Adjusts the saturation of an image.
Hue Adjustment (In Color mode only)			-3, -2, -1, 0, +1, +2, +3	Adjusts the balance between Red and Green with Yellow in the middle.
RGB Adjustment (In Color mode only)			-3, -2, -1, 0, +1, +2, +3	Enables individual RGB adjustments
Grayscale			ON, OFF	
File format	Color		PDF, TIFF, JPEG, XPS	File format used to save the scanned images as a file Encrypt PDF is a new function to support.
	Mono (Grayscale)		PDF, TIFF, JPEG, XPS	
	Mono (2 levels)		PDF, TIFF, XPS	
Encrypted PDF (PDF document security) [New function]			Encrypt, Not Encrypt	With Encrypted PDF set to ON, Setup Wizard launches enabling to set each menu item.
	Encryption level		Low (Compatible with Acrobat4.0 and later) Medium (Compatible with Acrobat5.0 and later) High (Compatible with Acrobat7.0 and later)	Specifies the level of encryption. The higher the level, the higher the security. Encrypted by RC4 (40bit) for Low, RC4 (128bit) for Medium, and AES (128bit) for High. Default value is Medium.
	Password to open a document		Not set Set Default password set	Sets a password to open created PDF documents. Setting from Admin Setting: * Either "Password to open a document" or "Access password" must be set. ("Not set" may not be selected for both.)
		Set	Password / Re-enter Password Default value is NULL	Sets a password to open created PDF document. NULL by default. Characters that can be entered are 1 to 32 alphanumeric characters (Upper-/Lower-case letters) and no symbols can be used. This cannot be the same as Access password. * Users are prompted to enter twice for confirmation.
	Access Password		Not set Set Default password set	Sets a password to restrict operations such as editing and printing created PDF documents. * Either "Password to open a document" or "Access password" must be set. ("Not set" may not be selected for both.)
		Set	Password / Re-enter Password Default value is NULL	Sets a password to restrict operations such as editing and printing created PDF documents. NULL by default. Characters that can be entered are 1 to 32 alphanumeric characters (Upper-/Lower-case letters) and no symbols can be used. This cannot be the same as Access password. * Users are prompted to enter twice for confirmation.
	Document Access	Print the Document	Not allowed Low resolution (150dpi) High resolution	Low Resolution (150dpi) is displayed only when Encryption Level is other than Low.
		Extract Text and Graphics	Not allowed Allowed	Security Options in formatting in PDF: Extracting texts and graphics

Items			FX750	Supplement
		Change the Document	Not allowed Commenting allowed Page layout allowed *3 Page Inserting, deleting, or rotating allowed. *4 All operations but Page Extraction allowed	*3 Applicable only when Encryption Level is Low. *4 Applicable only when Encryption Level is Medium or High.
Compression Level	Color		High, Medium, Low	Compression rate widely differs depending on the document images and file format subject to compression.
	Mono (Grayscale)		High, Medium, Low	
	Mono (2 levels)		High, Medium, Raw	

*1 Due to memory size available in this MFP, the setting of Resolution, Paper Size, for example, is restricted.

*2 Duplex Scan is not supported for A6 document.

ScanToEmail Fucntion

Items		FX750
Address confirmation		To, Cc, Bcc
		(Up to 256 entries)
Address Book		List of Email addresses added to the Address Book Up to 100
Address Book (Group)		Group number Up to 20
Mail Send History		Email addresses manually typed in Up to 50
LDAP [E-mail Address from LDAP Server]		Up to 100 entries can be displayed after search.
Send destination	Direct Input	An Email address to which Email is sent manually typed in.
	Address Book Search	List of Email addresses added to the Address Book Up to 100 can be registered.
	LDAP Search	Up to 100 entries can be displayed after search.
Mail Edit	Subject selection	Subject Up to 5 selections can be registered.
	Subject	Subject text Up to 80 characters can be entered.
	Body selection	Body Up to 5 selections can be registered.
	Body	Body text Up to 256 characters can be entered.

ScanToNetworkPC Function

Items	FX750
Protocol	FTP, HTTP, CIFS server
Max. number of File server settings	50 units
Separation Limit	N/A
FTP Passive mode	Yes
Encryption	Yes (FTPS/HTTPS)

ScanToUSB Memory Function

Items	FX750
Interface	USB2.0 Host I/F
Support File System	FAT12, FAT16, FAT32 FAT32: Up to 32GB
Supported devices	USB Memory (USB1.1/2.0)

Network Twain Function

Items	FX750	Supplement
Network TWAIN	ON/OFF	Enables/disables the Network Twain function.
Port Number	1 ~ 65535	Number of the port that receives the Network Twain command from PC
PC Scan Modes	Simple Scan Mode/Secure Scan Mode	
Timeout setting	1 ~ 30 minutes	It is commonly set for USB and Network.

Push Scan Function

Item		FX750
Interface (PC - FX750)		USB2.0 (High Speed) Device IF, Ethernet 10/100 Base-T
Push Scan Utility		ActKey Utility
Scanner Driver		TWAIN, WIA : FX750 TWAIN Driver
To Application	Scan Method	Flatbed, ADF, Auto * In Options Direction (Left/Upper) and Duplex can be selected. *1 * If Auto is selected, document is first scanned from ADF and then if there is none in ADF, from FBS assuming there is in Flatbed.
	Scan Mode	Color (24bit), Grayscale (8bit), B/W, Halftone * No halftone scanner output. Executed on Scanner Driver side.
	Resolution	75, 100, 150, 200, 300, 400, 600, 800, 1200, 2400, 4800dpi * Scanner's basic performance varies with the selection of Color mode among other settings, and if a resolution exceeding this basic performance is specified, the driver runs the resolution process.
	File format	BMP, JPG, TIF, PCX, GIF, TGA, PNG, WMF, EMF, PDF, Multi-Page PDF, Multi-page TIF
	Document size	A4, A5, B5, A6, legal13,Legal13.5, Legal14, Letter, Executive * * Only ADF can be used for Legal 13, Legal 13.5, and Legal 14. (Not Flatbed).
To Folder	Scan Method	Same as To Application.
	Scan Mode	Same as To Application.
	Resolution	Same as To Application.
	File format	Same as To Application.
	Document size	Same as To Application.
PC-Fax	Scan Method	Same as To Application.
	Scan Mode	B/W
	File format	-
	Document size	Same as To Application.
	Encoding method	MH, MR, MMR, JBIG

*1 Duplex (Default : OFF) and Binding (on the left/right, top) can be set only when ADF is selected.

PC Scan Function

Item		FX750
Interface (PC <-> FX750)		USB2.0 (High Speed), Ethernet (10/100 Base-T)
Scan Mode	Scan method	Flatbed, ADF, Auto * In Options Direction (Left/Upper) and Duplex can be selected. *2 * In Auto, document is first scanned from ADF and then if there is none in ADF, from FBS assuming there is in Flatbed.
	Color Mode	Color (24bit), Grayscale (8bit), B/W, Halftone * Device output: Color, Grayscale, B/W, Halftone is processed by driver.
Resolution	Custom	50 ~ 600dpi (in increments of 1dpi)
	Preset	75, 100, 150, 200, 300, 400, 600, 800, 1200, 2400, 4800dpi, 19200dpi * Scanner's basic performance varies with the selection of Color mode among other settings, and if a resolution exceeding this basic performance is specified, the driver runs the resolution process.
Scan Size	Custom	ADF : Min: 105 x 148 mm / Max: 215.9 x 355.6 mm Flatbed : Min:105 x 148 mm / Max : 215.9 x 296.9 mm
	Preset	A4, A5, B5, A6, Legal13, Legal13.5, Legal14, Letter, Executive
Image Process	Output scale	1% ~ 999%
	Sharpness	None, Sharpen, More Sharpen
	Background Remove	Level0 ~ Level6
	Edge Erase	5 ~ 50mm
	Center Erase	N/A
	Font smoothing	Yes
	De-screen	Yes

Item		FX750
Image Quality Adjustment *1	Brightness	Yes
	Contrast	Yes
	Gamma	Yes
	Histogram Level	Yes
	Curves	Yes
	Color Balance	Yes
	HSB	H: Hue, S: Saturation, B: Brightness

*1 Can be set only in Advanced.

*2 Duplex (Default : OFF) and Binding (on the left/right, top) can be set only when ADF is selected.

Fax specification

Function			Description
Basic Fax function	FAX, TEL line		PSTN, PBX
	Line Interface		RJ11 × 2 (LINE1, TEL1)
	External phone		Support
	Image Memory Size		4MB (Flash Memory)
	Storage capacity		200 pages (ITU-T No1 chart A4)
	Compatibility		ITU-T T30 G3
	Tx, Rx Resolution		Normal : 8 dots × 3.85 lines/mm (203x98dpi) Fine : 8 dots × 7.7 lines/mm (203x196dpi) Ext-Fine : 8 dots × 15.4 lines/mm (203x391dpi) Photo : 8 dots × 7.7 lines/mm (203x196dpi)
	Compression		MH/MR/MMR/JBIG
	Maximum Tx, Rx width		Letter size
	FAX Speed		Maximum 33,600 bps (V34, V17, V29, V27ter)
	T.30 error correction mode (ECM)		Yes (default : ON)
	Polling function		Support as a part of F code function
	F code function		F code confidential box, F code bulletin board box (Max.20)
Tx function (Send)	Scan function	Document size	Legal14, Legal13.5, Legal13, Letter, A4 (From ADF) Letter, A4 (From Flatbed)
		Scanning mode	Normal : 8 dots × 3.85 lines/mm (203x98dpi) Fine : 8 dots × 7.7 lines/mm (203x196dpi) Ext-Fine : 8 dots × 15.4 lines/mm (203x391dpi) Photo : 8 dots × 7.7 lines/mm (203x196dpi)
		Density adjustment	-3, -2, -1, 0, +1, +2, +3
		Duplex scanning	Support
		Job Build	Support

Function			Description
Tx function (Send)	Transmission	Real-time Tx	Support
		Memory Tx	Support
		Manual Tx	Support
	Dial	Direct dial	Max 40 degits
		Group dial	Up to 20 group (100/group)
		Speed dial	Up to 100
		One touch key	Support
	Redial	Automatic	Available times, interval
		Manual	Select from Tx history
		Tx dial history	Up to 10 records
	Sender/ Destination name	Tx w/ Sender name	Max 3 name
		Display TSI/ CSI on the panel	TSI/CSI information is displayed on the panel. Available
	Broadcast		Up to 100 destination
	Tx reservation (Dual access)		Support
	Delayed Tx (Send at specified time)		Up to 31 days, Up to 20
	F code	F code confidential transmission	Support (specify Sub-Address)
		F code bulletin board polling reception	Support (specify selective polling address)
		F code relay transmission	N/A
	Security function	ID check transmission	Support
		Dial double pressing	Support

Function			Description
Rx function (Receive)	Automatic receive		Support
	Manual receive		Support
	Standby mode	FAX	Support
		MANUAL	Support
		FAX/TEL	Support
		ANS/ FAX(TAD)	Support
		DRD	Support
	Receive mode	Memory receive	Yes
		Memory only receive	Not Supported (at FCS)
		Real-time receive	N/A
		Memory receive (Alternative)	Support
	Sender information	Display Sender TSI	Support (Sender TSI information is displayed on the panel.)
		Receipt Time stamp	Support (A received document is printed with sender's fax number, date/hour/minute, and page numbers added.)
	Security function	Junk Fax Protection	Not Supported (at FCS)
	Polling transmission (Accumulation of polling documents)		N/A
	F code	F code confidential reception	Support (specify Sub-Address)
		F code bulletin board polling transmission	Support (specify selective polling address)

Function			Description
Rx function (Receive)	Print function	Effective record size	Legal14, Legal13.5, Legal13, Letter, A4
		Print margin	same as printer
		Threshold level	The value that determines the position in which received images are clipped or reduced when they do not fit in valid recording paper sizes.
		Page split	If the portion exceeding the valid recording size is larger than the threshold, the page is split.
		Reduction	Auto or 100%
		Duplex print	Support (Printer's Duplex Print settings are followed.)
		Specifying cassette	Support
	Number display		N/A
Fax Forwarding			Support (Only be able to specify an Phone number)
Others	Line monitor (Acoustic Monitor)		OFF/Type1/Type2 (Type1: till DIS, Type2: till on-hook)
	Buzzer		Support
	PC-FAX		Support
	Internet FAX		T.37 simple mode+DSN, MDN
Reports	Transmission confirmation certificate (MCF Report)		Support
	Check message		Support (except for Real-time Tx)
	Tx/Rx report (Transmit, Receipt Journal Report)		up to 50 records
	F code reception notice (F code Box Journal Report)		Support
	Erase notice (Erased Report)		Support
	T30Monitor		Support

Internet Fax

Function/Item			Description
IFAX file format	Send	TIFF-S	File format supported in Internet FAX Send.
		TIFF-F	File format supported in Internet FAX Send.
	Receive	TIFF-S	File format supported in Internet FAX Received.
		TIFF-F	File format supported in Internet FAX Received.
IFAX Send/ Receive	MDN	Send request for MDN	Requests for MDN.
		Send MDN reply	Sends an MDN reply in response to a received request for MDN.
		Receive MDN reply	Receives an MDN reply and processes.
	DSN	Send request for DSN	Requests DSN.
		Receive DNS reply	Receives a DNS reply and processes.
IFAX Report	Send/Receive management report	Send Management Report	Reports Send records (a summary of information).
		Receive Management Report	Reports Receive records (a summary of information)
	At reception of MDN reply	Communication report	A report printed automatically at reception of MDN reply.
	At reception of DNS reply	Transmission confirmation report	A report printed automatically at reception of DSN reply.
Auto Deliver/ Transmission Data Save	Auto Deliver	IFAX Receive	Auto delivery associated with IFAX Receive
	Communication Data Detention	IFAX Send	Saves communication data associated with IFAX Send.
		IFAX Receive	Saves communication data associated with IFAX Receive.

Function/Item			Description
IFAX Images	Basic Features	Scan size (Document Size)	A4, Letter, Legal13, 13.5, Legal14
		Density	-3, -2, -1, 0, +1, +2, +3
		Document type	Photo, Ex. Fine, Fine, Standard Resolution : 200 x 100, 200 x 200, 200 x 400, 200 x 200dpi respective
		Background Removal	OFF, 1, 2, 3, 4, 5, 6
	Application features	Duplex Scan	OFF, Long Edge, Short Edge
		Job Build Scanning	ON, OFF
		Compression Level	High, Medium, Low

Report Print

No	Report Name	Manual				Auto
		Op Panel	Configuration Tool	Web Page	Special Operations	
1	Configuration	Yes	No	No	No	No
2	File List	Yes	No	No	No	No
3	Error Log	Yes	No	No	No	No
4	Demo Page	Yes	No	No	No	No
6	MFP Usage Report	Yes	No	No	No	No
7	Network Information	Yes	No	No	No	No
8	PCL Font List	Yes	No	No	No	No
9	PSE Font List	Yes	No	No	No	No
10	PPR Font List	Yes	No	No	No	No
11	FX Font List	Yes	No	No	No	No
12	Color Profile List	Yes	No	No	No	No
13	Color Tuning Pattern	Yes	No	No	No	No
14	ID Check	Yes*	No	No	No	No
15	Engine Menu Print	Yes*	No	No	No	No
16	Color Table Status	No	No	No	Yes	No
17	File System Check Report	No	No	No	No	Yes
18	Scan To Log Report	Yes	No	No	No	No
19	E-Mail Address List	Yes	No	No	No	No
20	Speed Dial List	Yes	No	No	No	No
21	Group List	Yes	No	No	No	No
22	Transmit Journal, Receipt Journal	Yes	No	No	No	Yes
23	Transmit Confirmation Report	No	No	No	No	Yes
24	Check Message	No	No	No	No	Yes
25	F-CODE Box Journal	No	No	No	No	Yes
26	Erased Report	No	No	No	No	Yes
27	F-Code Box List	Yes	No	No	No	No
28	T30 Monitor	Yes	No	No	Yes	No
29	E-mail/IFAX Transmit and Receipt Journal	Yes	No	No	No	Yes
30	E-mail/IFAX Transmit Confirmation Report	No	No	No	No	Yes
31	E-mail/IFAX Check Message Report	No	No	No	No	Yes
32	Network Syslog Print	Yes	No	No	No	No
33	Print check Pattern	Yes	No	No	No	No

* Default settings is not to be displayed in a menu item.

Print from USB memory

Item		Description
Interface		USB2.0 (High Speed) Host IF
Storage Device		USB Memory (Recognized up to 32GB)
	File System	FAT12, FAT (FAT16), FAT32
USB port		Below the operator panel on the device's front side
Printable file format		JPEG, PDF (v1.7), M-TIFF (v6 Baseline), PRN (PCL, PS), XPS
		(Encrypted PDF is not supported)
File size limit		The range that can be spooled to installed memory (RAM)
Print file selection		A list of files is displayed on the panel for selection. (Selection of multiple files is not supported.) Files for view are filtered by their extension. Extensions: JPG, JPEG, PDF, TIF, TIFF, PRN (no casesensitive)
	Specifying Sub Folder	Yes
	Displaying a file name in 2-byte characters	Yes
Unit of print		One file at a time, selected from the panel
Print Range		The entire file (pages cannot be specified)
Print Mode	Paper Size	By the current Menu settings (Size of paper presently loaded in the tray can be selected from the panel.)
	Copies	By the current Menu settings (With PRN, by the value specified at a time of file creation)
	Duplex Print	By the current Menu settings (With PRN, by the value specified at a time of file creation)
	Fitting	By the current Menu settings (A new item in the menu) Can be turned ON/OFF on the panel. (Always OFF with PRN)
	N-up	No
Printing restrictions		Yes
Color/Mono switch		Possible to print color images in mono mode and monochrome images in color mode.
Print logs		Job Log : Print JA Log : Counted under USB Memory to Print.
Behavior when printing is disabled		The Print Job specs are followed. Behavior in case of encrypted PDF files: Displays an error on the panel and end the job.

Display information

Information provided (displayed)	Comment
Path	Can be displayed in Japanese (Maximum Length 2-byte Code : 255 characters)
Name	Can be displayed in Japanese (Maximum Length 2-byte Code : 255 characters)
Type	File or Directory only
Size	File only
Last update date	YYYY/MM/DD

Email To Print Overview Spec.

Item		Description
Mail format		Compliant to MIME1.0.
Printing mail text		No
Printing attached file	PDF	Yes (v1.7)
	JPEG	Yes
	TIFF	Yes (v6 Baseline)
Valid extension		pdf / jpg / jpeg / tif /tiff
Printing sequence		Files are printed in the order in which they are attached.
Maximum number of attached files		10
File size limit		Maximum size is 8MB per file.
Print Mode	Paper Size	By image’s page size.
	Copies	By the current Menu settings
	Duplex	By the current Menu settings
	Fitting	Dependent on the file format.
	N-up	No
	Others	N/A
Print Range		Entire file (Cannot be specified by page)
Password for PDF print		Encrypted PDF is not supported.
Printing restrictions		By NetPrint settings.
Print logs		By attached file
Behavior when printing is disabled		Don't display any warning message on the panel. Don't send error notification by mail to Email senders.

Auto Deliver Function (MC561 only)

Items	SD Card has to be installed
Auto Deliver settings input method	From Product Web Page *1
Delivery data input source	FAX Receive, Email Receive, Internet FAX Receive *2
Delivery Destination	Email, Network Folder (CIFS, FTP, HTTP)
Printing at delivery	ON/OFF
Max registrable number of Auto Deliver settings	100
Attached file format in FAX Receive (Delivered file format)	PDF only
Attached file format in Email receive (Delivered file format)	PDF or TIFF *3
Email text delivery in Email Receive	Not delivered
Maximum file size in Email Receive	8MB
Maximum file size in FAX Receive	4MB *4
Recovery Print with Delivery Error	Supported
Auto Delivery Logs	Supported

*1 Basically from the Web Page. This can be set by PJL command from an external utility such as MFP Setup Tool.

*2 Internet FAX Receive works in the same way as when the format of a file received attached to a mail received in Email Receive is TIFF.

*3 The Delivery file format is determined by the attached file's format in Email Receive. The format will be PDF if the attached file format is PDF/JPEG and TIFF if TIFF.

*4 Up to 16MB. This depends on the available space on FAX memory at reception time.

Transmission Data Save Function (MC561 only)

Items	SD Card has to be installed
Transmission Data Save input method	From Product Web Page *1
Subject to Transmission Data Save	FAX sent, FAX received, Email sent, Email received, Internet FAX sent *2, Internet FAX received *2
Save destination	Network Folder (CIFS, FTP, HTTP)
Attached file format in FAX Send/Receive (saved file format)	PDF only
Attached file format in Email Send/Receive (saved file format)	PDF or TIFF *3
Maximum file size in Email Send/Receive	8MB
Maximum file size in Fax Send/Receive	4MB *4
Communication Data Saving Logs	Supported

*1 Basically from the Web Page. This, however, can be set by PJL command from an external utility such as MFP Setup Tool.

*2 Sent Internet FAX works in the same way as when the attached file format in Email Send is TIFF, and received Internet FAX as when the attached file format in Email Receive is TIFF.

*3 The saved file format in Email Send will be PDF. In Email Receive, it is determined by the attached file format. The format will be PDF if the attached file format is PDF/JPEG and TIFF if TIFF.

*4 Up to 16MB. This depends on the available space on FAX memory at reception time.

Access Control and Job Accounting Functions Overview Specs

Item		Description
Access Control		Yes
	Copy	Color enabled / Color disabled / Printing disabled
	Print	Color enabled / Color disabled / Printing disabled
		In addition, Printing disabled / Forced to print in Mono in case of Color disabled
	Scan to Email	Use enabled / Use disabled
	Scan to Network PC	Use enabled / Use disabled
	Scan to USB Memory	Use enabled / Use disabled
	Push Scan	N/A
	PC Scan	N/A
	Fax Send	Use enabled / Use disabled
	Fax Receive	N/A
	PC Fax Send	Use enabled / Use disabled
	E-mail to Print	N/A (Not support by user)
	Print from USB Memory	Use enabled / Use disabled
PIN ID		1 ~ 10 digits
	Number of ID that can be registered	Max. 100
	Register/Edit	Configuration Tool, Web Page, JA Server
User/Password		1 ~ 32 characters
	Number of ID that can be registered	Max. 100
	Register/Edit	Configuration Tool
	User Authentication Method	Local/LDAP/Secure Protocol

Item		Description
Job Accounting		Yes
	Number of JA Logs that can be saved	Approx. 5000 (w/SD Card), Approx. 200 (w/o SD Card)
	Copy	Counted as printed sheets
	Print	Yes
	Scan to Email	N/A
	Scan to Network PC	N/A
	Scan to USB Memory	N/A
	Push Scan	N/A
	PC Scan	N/A
	Fax Send	Yes
	Fax Received	Sheets printed with the images received by Fax are counted as printed sheets.
	PC Fax Send	Yes
	E-mail to Print	Yes
	Print from USB Memory	Yes (Counted as USB Memory to Print.)

1.5 Interface specifications

1.5.1 USB Interface Specification

1.5.1.1 Outline of USB Interface

(1) Basic Specification

USB

(2) Transmission Mode

Hi speed (480Mbps±0.05% max.)

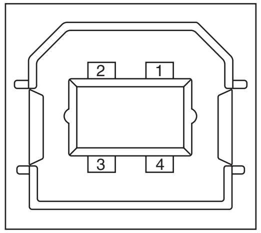
(3) Power Control

Self power device

1.5.1.2 USB Interface Connector and Cable

(1) Connector

- Printer side: B receptacle
  Upstream port
  Equivalent of UBR24-4K5C00 (made by ACON)



Connector pin arrangement

- Cable side: B plug (off)

(2) Cable

Cable length : Specification Cable of USB2.0 spec. of less than 5m.(less than 2m is recommended)

1.5.1.3 USB Interface Signal

	Name of Single	Function
1	Vbus	Power Supply (+5V)(red)
2	D -	Data transmission (white)
3	D +	Data transmission (green)
4	GND	Single ground (black)
Shell	Shield	

1.5.2 Network Interface Specification

1.5.2.1 Outline of Network Interface

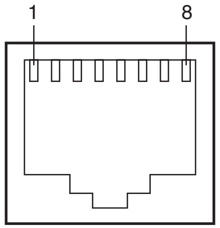
Table 1.5.2 Basic Specification of Network Interface

Protocol Family	Network Protocol	Application
TCP/IP	IPz4, TCP, ICMP, UDP	LPR, RAW SNMPv1 DHCP/BOOTP HTTP

1.5.2.2 Network Interface Connector and Cable

(1) Connector

100 BASE-TX/10 BASE-T (automatic switch, no simultaneous use)



Connector pin arrangement

(2) Cable

Unshielded twist pair cable with RJ-45 connector (Category 5 is recommended.)

1.5.2.3 Network Interface Signal

Pin No.	Singles	Single Direction	Functions
1	TXD+	FROM PRINTER	Send Data +
2	TXD-	FROM PRINTER	Send Data -
3	RXD+	TO PRINTER	Received Data +
4	-	-	Unassigned
5	-	-	Unassigned
6	RXD-	TO PRINTER	Received Data -
7	-	-	Unassigned
8	-	-	Unassigned

1.5.3 Telephone Line Interface Specification (Only MC561/MC361)

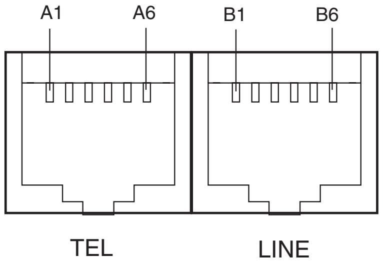
1.5.3.1 Outline of telephone Line Interface

The machine will reliably communicate with distant stations over voice-level telephone line.

1.5.3.2 Telephone Line Interface Connector and Cable

Connector Type : RJ-11
Cable Type : TEL Cable (With RJ-11 plug)

Connector contact arrengement



1.5.3.3 Telephone Line Interface signal

	Contact No.	Functions
TEL	A1	Unspecified
	A2	Unspecified
	A3	TCP
	A4	TCP
	A5	Unspecified
	A6	Unspecified
LINE	B1	Unspecified
	B2	Unspecified
	B3	TCP
	B4	TCP
	B5	Unspecified
	B6	Unspecified

TCP : Terminal Connection Point

1.5.4 USB Host Interface

1.5.4.1 Outline of USB Host Interface

(1) Basic Specification
USB

(2) Transmission Mode
Hi Speed (480Mbps±0.05% max.)

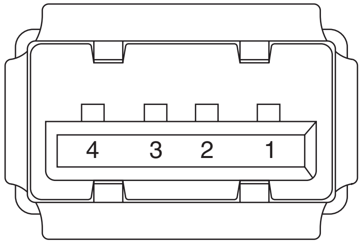
(3) Supply Power
Max. 500mA

(4) Connection devices
USB memory

1.5.4.2 USB Host Interface Connector

USB A plug connector

Equivalent of UBA-4R-D14-4DLF (JST Mfg. Co.,Ltd)



Connector pin arrangement

1.5.4.3 USB Host Interface Signal

	Name of Signal	Function
1	Vbus	Power Supply (+5V)(red)
2	D -	Data transmission (white)
3	D +	Data transmission (green)
4	GND	Single ground (black)
Shell	Shield	

2. DESCRIPTION OF OPERATION

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2.3 Image Scanning process 49

2.1 Electrophotographic process mechanism

(1) Electrophotographic process

The electrophotographic process is explained briefly below:

1. Charging

   A voltage is applied to the CH roller to electrically charge the surface of the OPC drum.

2. Exposure

   The LED head radiates light onto the charged OPC drum surface in accordance with an image signal. The electric charge of the radiated part of the OPC drum surface attenuates depending on the intensity of the light, thus forming an electrostatic latent image on the OPC drum surface.

3. Development

   Charged toner adheres to the electrostatic latent image of the OPC drum by electrostatic power, and forms a visible image on the OPC drum surface.

4. Transfer

   Paper is placed over the OPC drum surface and an electric charge is applied to it from the backside by the transfer roller, so that the toner image is transferred to the paper.

5. Fusing

   Heat and pressure are applied to the toner image on the paper to promote its fusion.

6. Drum cleaning

   The drum cleaning blade removes toner remaining on the OPC drum after transfer.

7. Static elimination

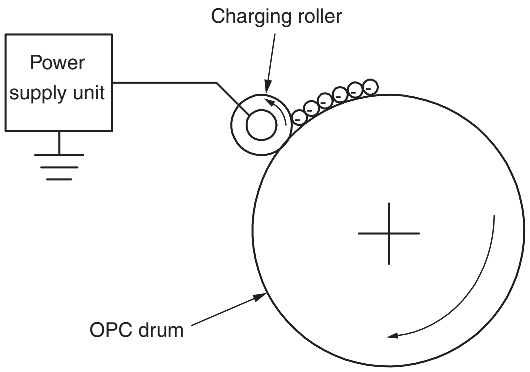
   Residual potential on the image drum is removed.

8. Belt cleaning

   The belt cleaning blade removes toner remaining on the belt.

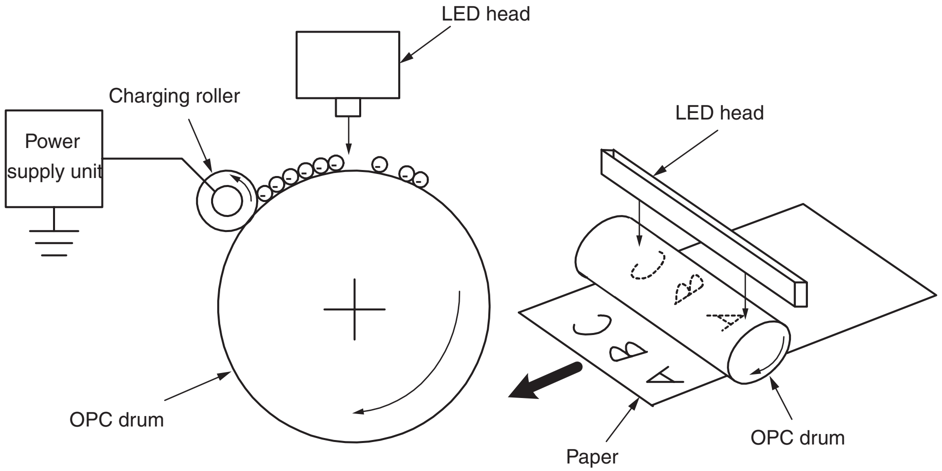
(2) Charging

A voltage is applied to the charging roller, which is placed in contact with the OPC drum surface, to charge the OPC drum surface.



(3) Exposure

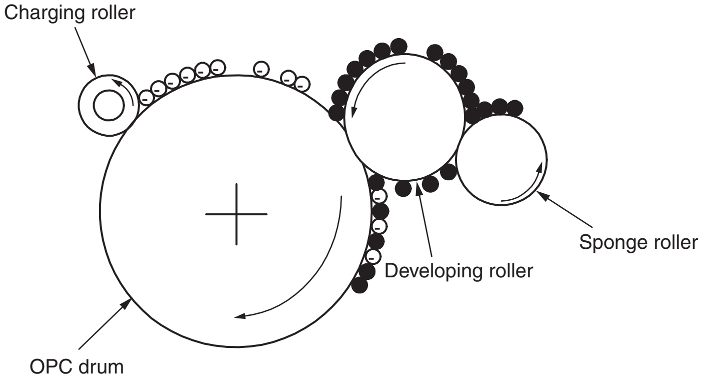
The light emitted from the LED head is radiated onto the charged OPC drum surface. The charge of the radiated part of the OPC drum attenuates according to the intensity of the light, forming an electrostatic latent image on the OPC drum surface.



(4) Development

Toner adheres to an electrostatic latent image on the drum surface, thereby turning the electrostatic latent image into a toner image.

1. The sponge roller allows the toner to stick to the developing roller.

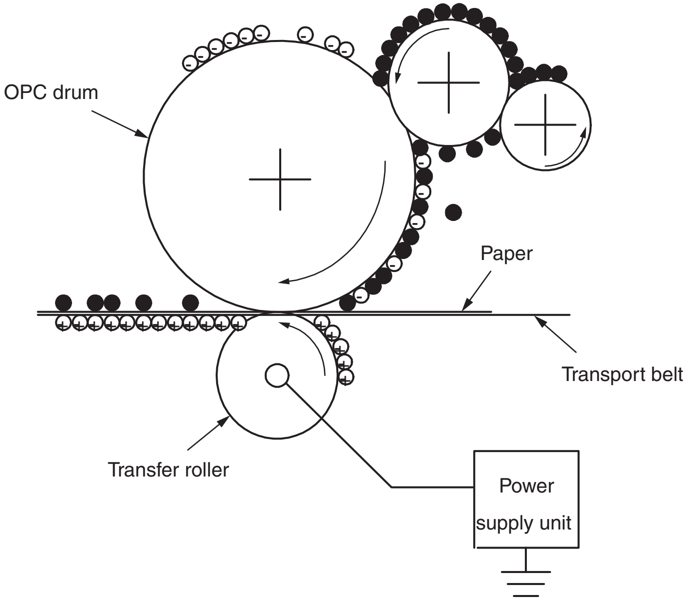

Charging roller
Sponge roller
Developing roller
OPC drum

2. The electrostatic latent image on the OPC drum surface is turned into a visible image by the toner.

(5) Transfer

A sheet of paper is placed over the OPC drum surface, and an electric charge is given to the paper from its backside by the transfer roller.

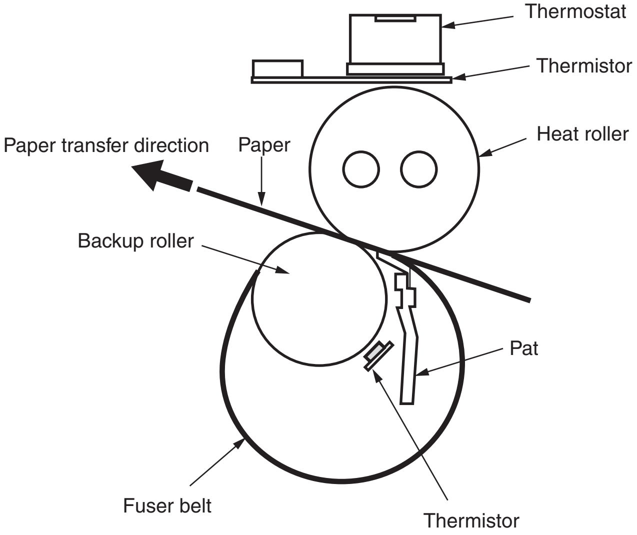
When a high voltage is applied to the transfer roller from the power supply unit, the charge induced on the transfer roller moves on to the surface of the paper through the contact part between the transfer roller and the paper, and the toner is attracted to the paper surface from the OPC drum surface.


OPC drum
Paper
Transport belt
Transfer roller
Power supply unit

(6) Fusing

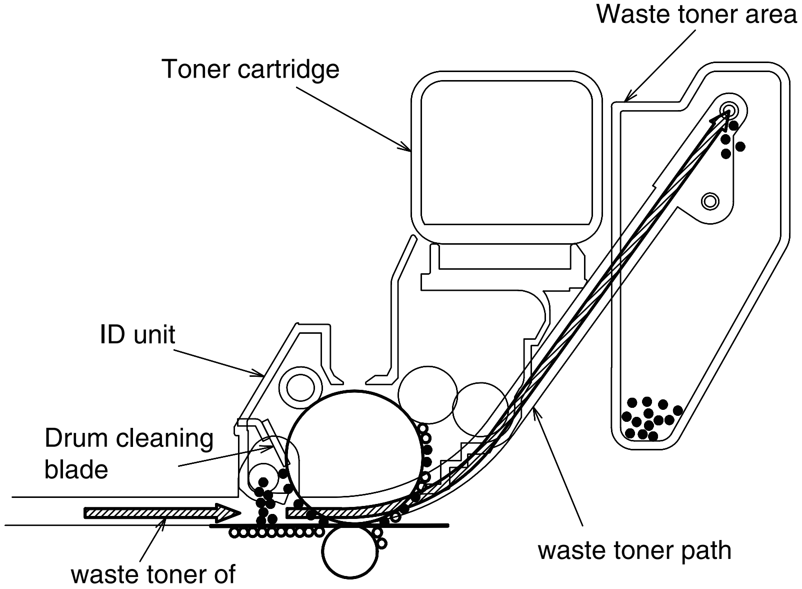
The toner image transferred on the paper is fused on the paper by heat and pressure when the paper passes through the heat roller and the backup roller unit (consists of a backup roller, a pat, and a fuse belt).

The heat roller is heated by 640W and 350W internal halogen lamps, and the backup roller has no internal halogen lamps and is heated by heat transferred from the heat roller. The fuser temperature is controlled according to the temperature that is detected with the thermistor not contacting to the heat roller surface. The temperature detected with the other thermistor that is frictionally sliding against the backup roller surface is used to control the fuser temperature under designated conditions. There is also a thermostat for safety purposes. When the heat roller temperature rises above a certain temperature, the thermostat is open and voltage supply to the heater is cut off. The backup roller unit is pressed against the heater by the press spring on both sides.


Thermostat
Thermistor
Heat roller
Paper transfer direction
Paper
Backup roller
Pat
Fuser belt
Thermistor

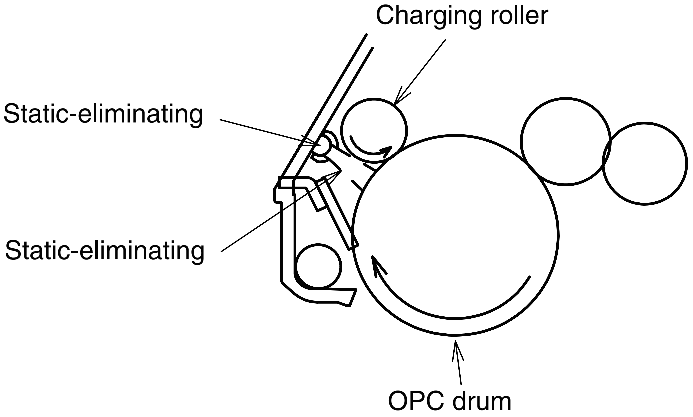
(7) Drum cleaning

Unfixed toner remaining on the OPC drum is removed by the drum cleaning blade and collected into the waste toner area of the K toner cartridge.


Waste toner area
Toner cartridge
ID unit
Drum cleaning blade
waste toner path
waste toner of

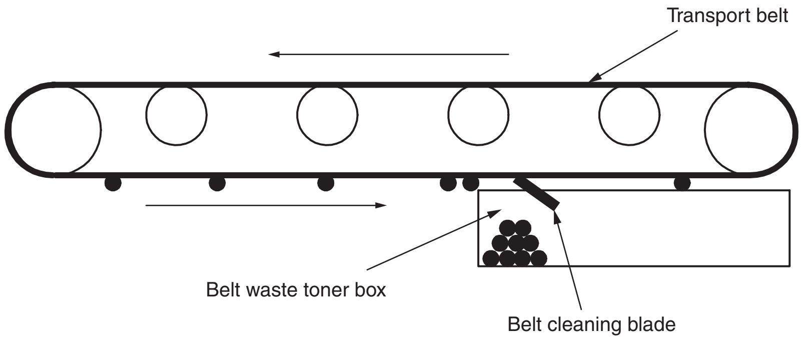
(8) Static elimination

After completing transfer, the OPC drum is illuminated with its surface to reduce static charge of its surface.


Charging roller
Static-eliminating
Static-eliminating
OPC drum

(9) Belt cleaning

Toner remaining on the transfer belt is scraped off by the belt cleaning blade and collected into the waste toner box of the transfer belt unit.


Transport belt
Belt waste toner box
Belt cleaning blade

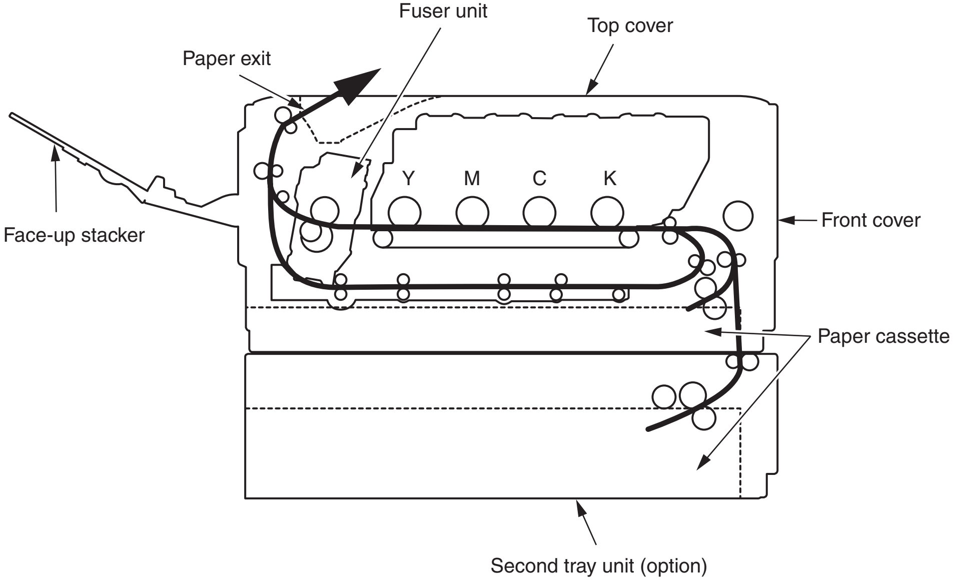
2.2 Printing process

Paper fed from Tray 1, Tray 2 is carried by the paper feed roller, the registration roller L, and the transport roller. When paper is fed from the MPT, it is carried by the MPT paper feed roller and the registration roller U. Then, an unfixed toner image is created on the paper transported onto the belt sequentially through the electrophotographic process of KYMC.

Thereafter, the image is fixed under heat and pressure as the paper goes through the fuser unit. After the image has been fixed, the paper is ejected to a face-up stacker or to a face-down stacker, according to the outputting method selected by opening or closing of the face-up stacker.

The above refers to the simplex printing operation of the printers, and the following explains the duplex printing operation.

During duplex printing, paper, which firstly passes the fuser unit after its backside is printed, is sucked into the duplex unit by the separator DUP. After entering the paper reverse transport path, the paper is carried from there to the inside of the duplex unit by the inverting operation of the reverse roller. After passed through the duplex unit by the transport roller that is located on the transport path inside the duplex unit, the paper is fed along the paper feed route of the duplex unit, and then arrives the route for paper feeding from a tray. From here on, the same operation as that of simplex printing of paper fed from the tray takes place.



(1) Paper fed from 1st Tray

1. As illustrated in Figure 2-1, after the paper feed motor starts running (clockwise) and the 1st clutch comes ON, the paper is fed from the 1st Tray.
2. After causing the IN sensor to come ON, the paper is further carried over a certain distance to finally hit the registration roller. (This corrects skew of the paper.)
3. It causes the registration clutch to come ON and has the registration roller carry the paper.

(2) Paper fed from MPT

1. As illustrated in Figure 2-1, after the paper feed motor starts running (clockwise) and the MPT clutch comes ON, the paper is fed from the MP Tray.
2. After causing the IN sensor to come ON, the paper is further carried over a certain distance to finally hit the registration roller. (This corrects skew of the paper.)
3. It causes the registration clutch to come ON and has the registration roller carry the paper.

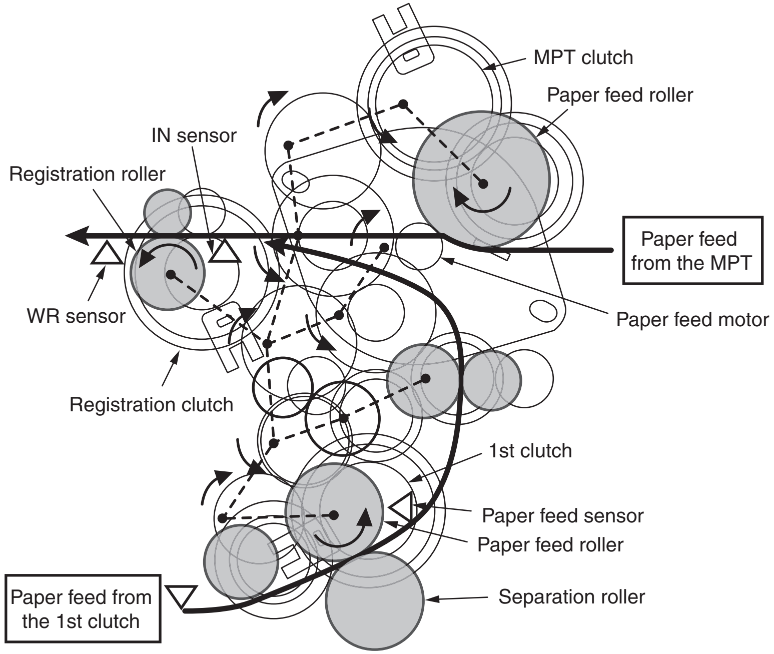

MPT clutch
Paper feed roller
IN sensor
Registration roller
Paper feed
from the MPT
WR sensor
Paper feed motor
Registration clutch
1st clutch
Paper feed sensor
Paper feed roller
Separation roller
Paper feed from
the 1st clutch

Figure 2-1

(3) Transport belt

1. As the transport belt motor runs in the direction of the arrow, the transport belt is driven. The belt unit consists of one transport roller placed immediately underneath each color drum, with a transport belt inserted in between them.

   As the specified voltage is applied, the transport belt and the transport rollers carry the paper on the transport belt to the fuser unit as transferring the toner images present on each color drum to the paper.

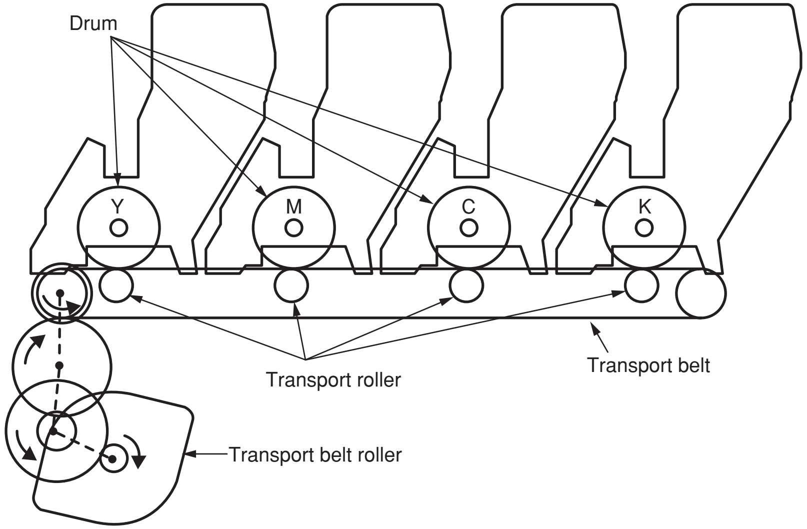

Drum
Y
M
C
K
Transport roller
Transport belt
Transport belt roller

Figure 2-2

(4) Up/down-motions of ID units

1. The up/down motions of the ID units take place driven by the fuser motor and the up/down clutch.
2. Figure 2-3 shows the motions of each of the ID units when the printer is operated for color printing. As the lift-up motor runs (counterclockwise) with the up/down clutch ON, the lift-up link slides to the left causing the ID units to come down as shown in Figure 2-3. In that state, color printing is available.
3. Figure 2-4 shows the motions of each of the ID units when the printer is operated for monochrome printing. As the lift-up motor runs (clockwise) with the up/down clutch ON, the lift-up link slides to the right causing the ID units, except the K-ID unit, to go up as shown in Figure 2-4. In that state, monochrome printing is available.

ID unit motions during color printing

Y-ID unit	Down
M-ID unit	Down
C-ID unit	Down
K-ID unit	Down

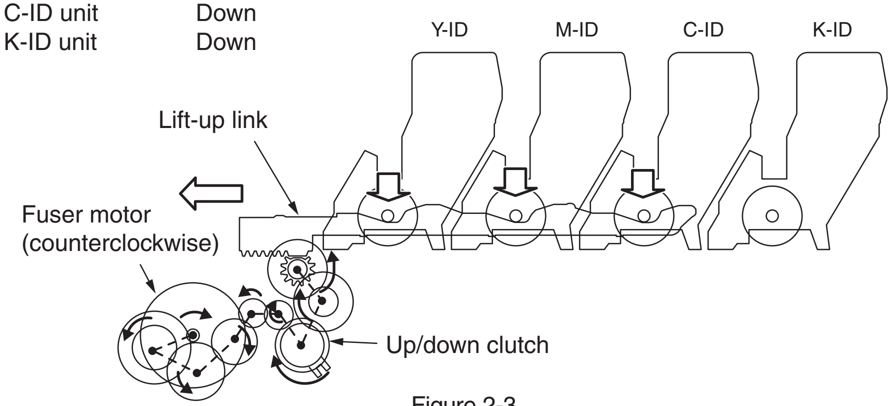

Y-ID
M-ID
C-ID
K-ID
Lift-up link
Fuser motor
(counterclockwise)
Up/down clutch

Figure 2-3

ID unit motions during monochrome printing

Y-ID unit	Lift up
M-ID unit	Lift up
C-ID unit	Lift up
K-ID unit	Down

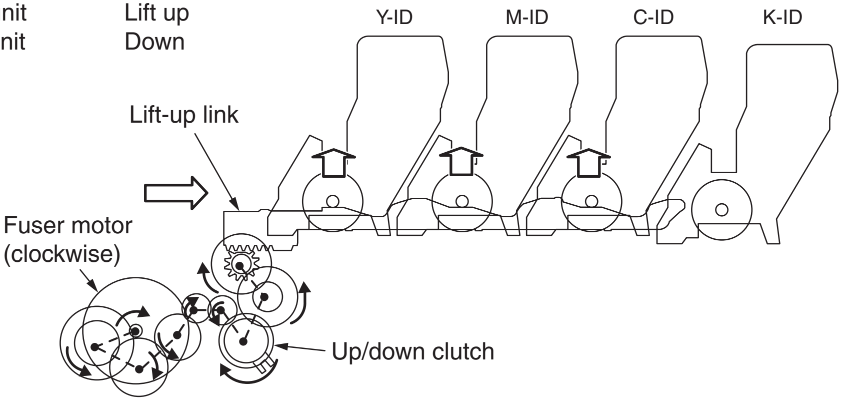

Y-ID
M-ID
C-ID
K-ID
Lift-up link
Fuser motor
(clockwise)
Up/down clutch

Figure 2-4

(5) Ejection unit and paper ejection

(a) Face-down ejection

Face-down ejection is available when the face-up tray is closed.

In that state, the separator FU is fixed in the direction illustrated in Figure 2-5, and the face-up tray detection sensor is enabled.

As the fuser motor runs (counterclockwise), the eject rollers and the heat roller start rotating, and printed paper is ejected with its face down.

(b) Face-up ejection

Face-up ejection is available when the face-up tray is open.

In that state, the separator FU is fixed in the direction illustrated in Figure 2-6, and the face-up tray detection sensor is disabled.

As the fuser motor runs (clockwise), the eject rollers and the heat roller start rotating, and printed paper is ejected with its face up. (When face-up ejection is enabled, duplex printing is not available.)

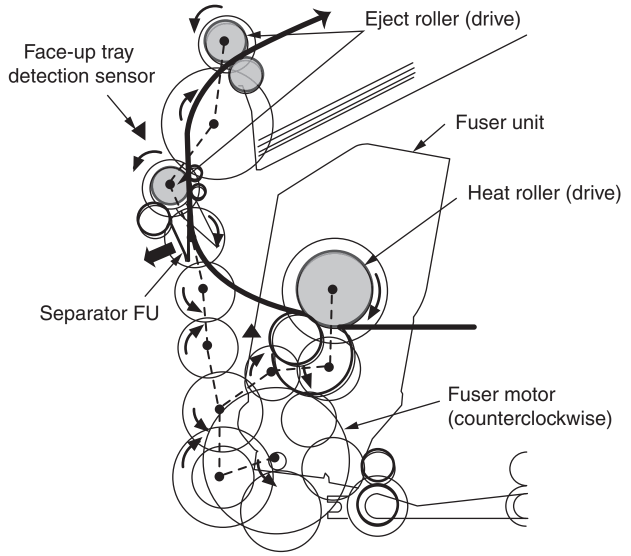

Eject roller (drive)
Face-up tray detection sensor
Fuser unit
Heat roller (drive)
Separator FU
Fuser motor (counterclockwise)

Figure 2-5

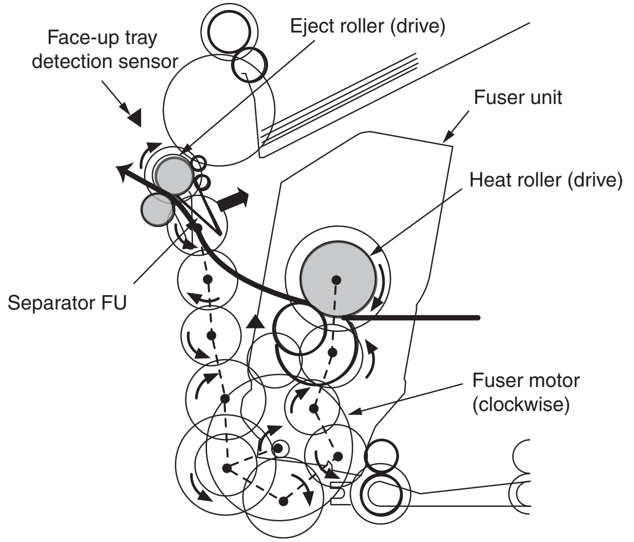

Eject roller (drive)
Face-up tray detection sensor
Fuser unit
Heat roller (drive)
Separator FU
Fuser motor (clockwise)

Figure 2-6

(6) Duplex printing system (paper flipping and returning to the paper feed route)

1. In a certain period of time after the fuser motor starts running counterclockwise and the rear end of paper being fed passes the eject sensor, the fuser motor starts running clockwise. (It changes from the state shown in Figure 2-7 to the state shown in Figure 2-8.)
2. As a result of that, the eject rollers start rotating in the reverse direction, and the paper is flipped and carried to the duplex unit.
3. When the duplex unit clutch becomes on, the paper is transferred by the duplex unit transport rollers.
4. In a certain period of time after the rear end of the paper passes the eject rollers, the fuser motor starts running counterclockwise, and as a result of this, the eject rollers can carry the next paper to the exit. (It changes from the state shown in Figure 2-8 to the state shown in Figure 2-7.) (The duplex unit transport rollers rotate in the same direction regardless of the running direction of the motor.)
5. The paper that is carried by the duplex unit transport rollers comes back to the route for paper feeding from a tray. After that, the paper is handled in the same way as paper fed from a tray for simplex printing.

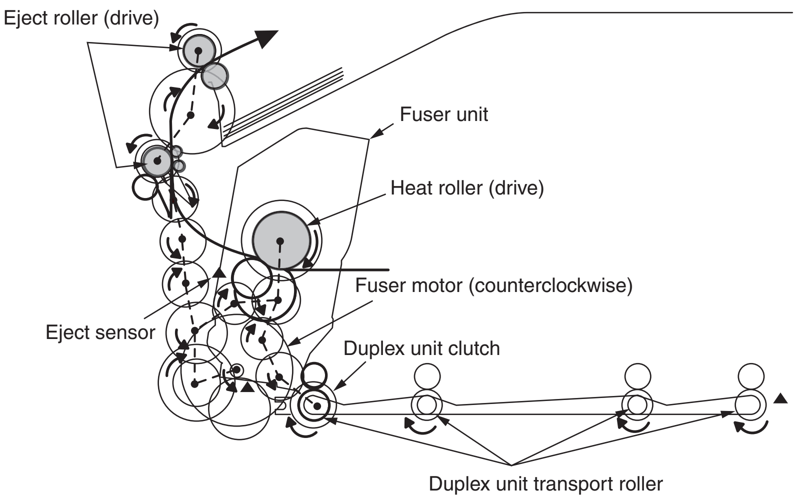

Eject roller (drive)
Fuser unit
Heat roller (drive)
Fuser motor (counterclockwise)
Eject sensor
Duplex unit clutch
Duplex unit transport roller

Figure 2-7

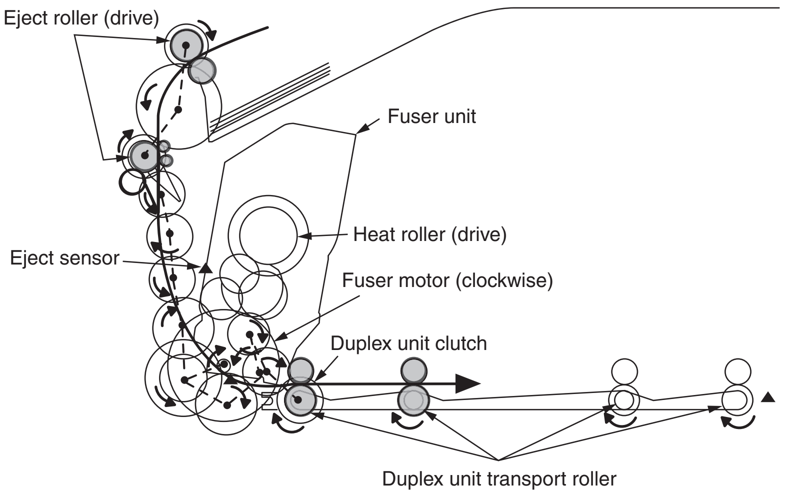

Eject roller (drive)
Fuser unit
Heat roller (drive)
Eject sensor
Fuser motor (clockwise)
Duplex unit clutch
Duplex unit transport roller

Figure 2-8

(7) Cover-opening motions of the color registration sensor and the density sensor

1. As illustrated in Figure 2-9, when the solenoid is energized, the link lever moves, causing the cover of the color registration sensor and the density sensor to open.
2. As the solenoid is de-energized, the spring pushes the cover, causing the cover of the color registration sensor and the density sensor to close.

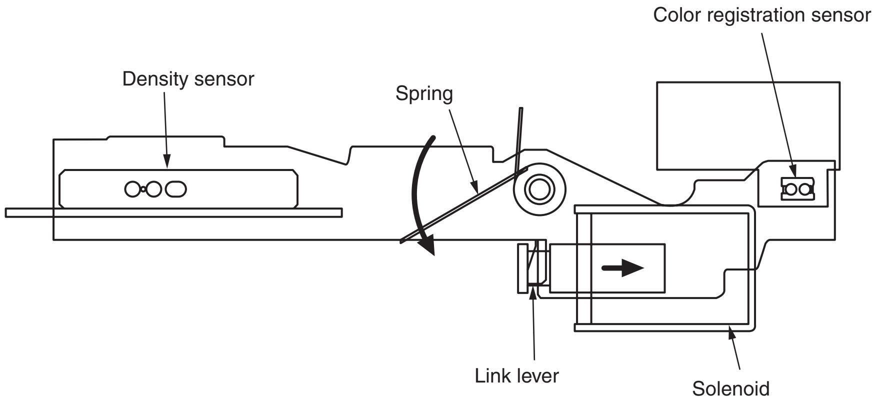

Color registration sensor
Density sensor
Spring
Link lever
Solenoid

Figure 2-9

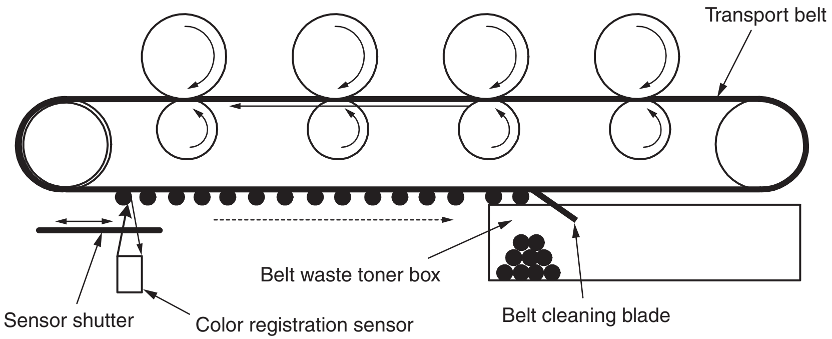
Outline of color registration correction

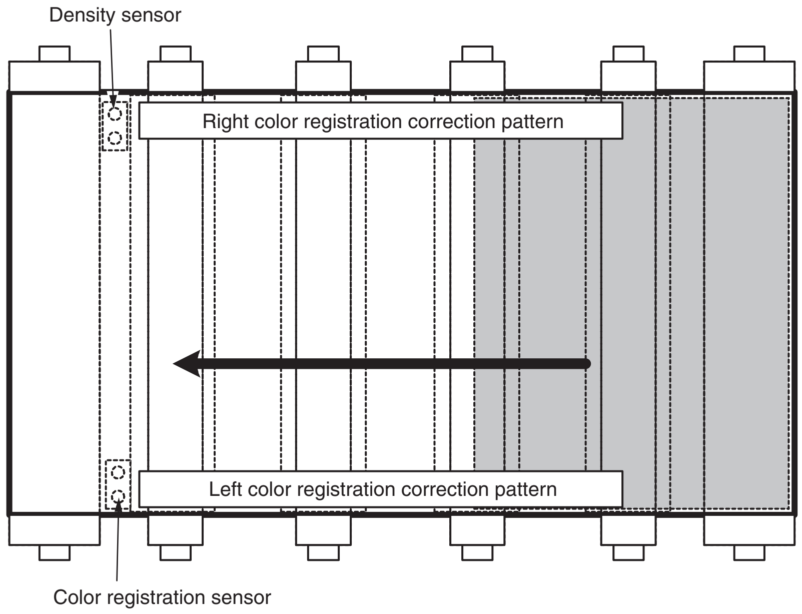
Color registration is corrected by reading correction patterns, which are printed on the belt, by use of the color registration sensor located inside the sensor shutter under the belt unit. The sensor is used to detect patterns and correct color registration.

Automatic start timing of color registration correction

- At power-on
- When an opened cover is closed
- When 400 or more pages have been printed or at least six hours has passed after the previous correction

A correction error may be issued due to an inadequate toner amount of a pattern generated, a sensor stained with toner, deficient opening/closing of the shutter, or for other reasons. However, even if such a registration correction error is issued, it is not indicated on the operator panel. Therefore, it is necessary to perform forcible color registration correction in the self-diagnostic mode (Section 5.3.2.6) to check the error indication.


Transport belt
Belt waste toner box
Sensor shutter
Color registration sensor
Belt cleaning blade


Density sensor
Right color registration correction pattern
Left color registration correction pattern
Color registration sensor

Error checking methods and remedies

The color registration correction test function among the other self-diagnostic functions is employed to check errors. (Section 5.3.2.6)

Remedies for different errors

- CALIBRATION (L or R), DYNAMICRANGE (L or R)

  Check 1: If the above indication appears, check the connected state of the sensor cable.

  If the connected state is found abnormal, restore it to the normal state.

  Check 2: Check to see whether the sensor surface is stained with toner, paper dust or any other foreign matter.

  If it is found stained, wipe it clean.

  Check 3: Check to see whether the sensor shutter opens and closes normally, by the MOTOR & CLUTCH TEST of the self-diagnostic function. If the shutter operates imperfectly, replace the shutter unit.

  If no problem was found by the checks 1 through 3, there is a problem with the circuit.

  Replace each of the color registration sensor board, the CU/PU board(CLP) and the connector cable one by one and check that no error will occur again.

- BELT REFLX ERR

  Check 4: If this indication appears, check the cleaned state for the toner remaining on the belt surface, in addition to making the above checks 1, 2 and 3. Take out the belt unit, turn the drive gear located on the left rear side, and ensure that the belt surface has been cleaned thoroughly.

  If cleaning is not achieved perfectly and there still remains toner on the belt surface after the drive gear has been turned, replace the belt unit.

- (Y or M or C) LEFT, (Y or M or C) RIGHT, (Y or M or C) HORIZONTAL

  Check 5: If the above indication appears, check to see whether toner of NG-issuing color is running short.

  Replace a toner cartridge, as needed.

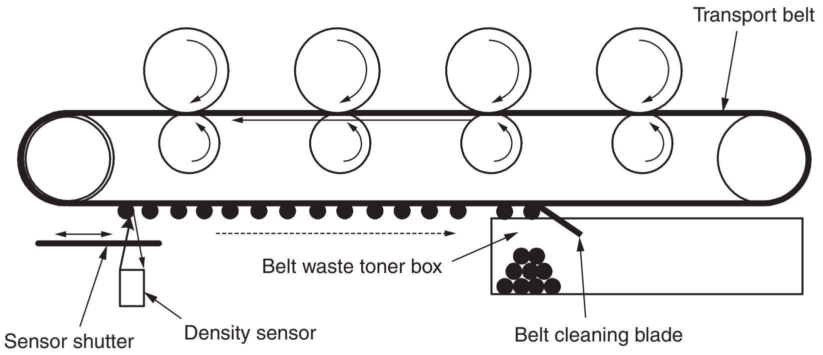
Outline of density correction

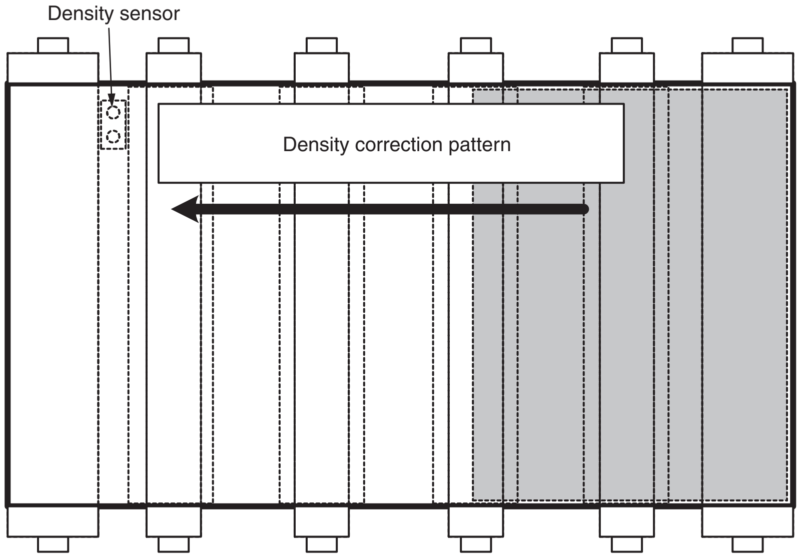
Density is corrected by reading correction patterns, which are printed on the belt, by use of the density sensor located inside the sensor shutter under the belt unit.

Automatic start timing of density correction:

- When the environment at power-on is drastically different from the environment of the previous correction
- When one or more of four ID count values at power-on indicates that the corresponding IDs are almost new
- When an ID count after the previous correction exceeds 500
- When one or more ID is replaced with a new one
- When the belt is replaced with a new one
- When a toner low or toner empty error is cleared by a replacement of a toner cartridge in a toner low or toner empty state

A correction error may be issued due to an inadequate toner amount of a pattern generated, a sensor stained with toner, deficient opening/closing of the shutter, or for other reasons. However, even if such a density correction error is issued, it is not indicated on the operator panel. Therefore, it is necessary to perform forcible color registration correction in the self-diagnostic mode (Section 5.3.2.7) to check the error indication.


Transport belt
Belt waste toner box
Sensor shutter
Density sensor
Belt cleaning blade


Density sensor
Density correction pattern

Error checking methods and remedies

The density correction test function among the other self-diagnostic functions is employed to check errors. (Section 5.3.2.7)

Remedies for different errors

- CALIBRATION ERR, DENS SENSOR ERR

  Check 1: If the above indication appears, check the connected state of the sensor cable.

  If the connected state is found abnormal, restore it to the normal state.

  Check 2: Check to see whether the sensor surface is stained with toner, paper dust or any other foreign matter.

  If it is found stained, wipe it clean.

  If no problem was found by the checks 1 and 2, there is a problem with the circuit.

  Replace each of the density sensor, the CU/PU board(CLP) and the connector cable one by one and check that no error will occur again.

- DENS SHUTTER ERR

  Check 3: Check to see whether the sensor shutter opens and closes normally, by the MOTOR & CLUTCH TEST of the self-diagnostic function. If the shutter operates imperfectly, replace the shutter unit.

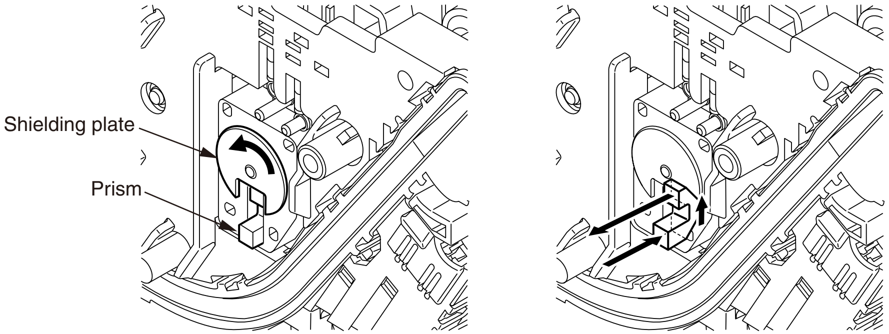
- DENS ID ERR

  Check 4: Take out the ID units and examine them to see if the drum surface has any abnormal toner smudge.

  Replace the LED head (out-of-focus), or replace any ID units with any abnormality.

  To test-operate a new ID unit, use the Fuse Keep Mode of the maintenance menu.

Principle of toner sensor detection



Toner LOW is detected by a toner sensor (Reflection sensor) installed inside each of the printers. A shielding plate is mounted inside each ID and rotates in synchronization with toner agitation.

Moreover, each ID has a shutter fitted. Each shutter is synchronized with the operation lever of the relevant toner cartridge, and the toner sensor can detect that the toner cartridge has been loaded properly. Detection may not take place normally, and a toner sensor error may be issued, if a shielding plate or toner sensor is stained with toner, or if an ID unit and the relevant toner sensor do not remain exactly opposite to each other in their positions.

Principle of the toner counter

After image data is developed to binary data that the printers can print, the LSI counts the data as the number of print dots. The amount of toner consumed is calculated from that count value, and the remaining amount of toner is thus indicated. As opposed to this, toner LOW detection by a toner sensor is implemented when the amount of toner remaining inside an ID unit physically decreases to below a certain level.

Principles of ID, belt, and fuser counters

ID counter:	One count represents the value that results from dividing the amount of rotation of a drum by three when three A4-size sheets are printed continuously.
Belt counter:	One count represents the value that results from dividing the amount of rotation of the belt by three when three A4-size sheets are printed continuously.
Fuser counter:	One count is registered when paper is shorter than the length of Legal 13-inch paper. When paper is longer than that, a count to add is determined by the number of times that the Legal 13-inch paper length is exceeded. (Rounding up of decimal fractions)

Counter specifications

	Total page count	MPT page count	Tray 1 page count	Tray 2 page count	Color page count	Monochrome page count
Description	Total number of prints	Number of print media hopped from MPT	Number of print media hopped from Tray 1	Number of print media hopped from Tray 2	Total number of color prints	Total number of monochrome prints
Count method: A4-basis or size independence	Count up after passing the writing sensor	Count up if MPF (MPT) hopping is finished successfully	Count up if Tray 1 hopping is finished successfully	Count up if Tray 2 hopping is finished successfully	The number of print media passing the fuser in color mode is counted when each job is finished (1*). The value is counted on an A4/Letter basis. Refer to A4/Letter conversion table (on the next page).	The number of print media passing the fuser in monochrome mode is counted when each job is finished (1*). Printing speed for color mode may be applied to monochrome mode. The value is counted on an A4/Letter basis. Refer to A4/Letter conversion table (on the next page).
peration when paper has jammed	Printed pages are not counted when a paper feed (hopping) jam or a feed jam (380) occurs. Printed pages are counted when any jam except the said jams occurs. Since the total page count is incremented when the front end of print media passes the writing sensor, a feed jam (380) is also included into the limits on counts according to its jam type.				If paper jams before passing the fuser, its pages are not counted. If paper jams after passing the fuser, its pages are counted.	
Operation for Duplex	Front/back count (+2)	Only front count (+1)			The count increases by two. If a color page and a monochrome page exist in a pair of two pages, the color page count increases by one, and the monochrome page count increases by one. If a pair of two pages is in color, the color page count increases by two. If a pair of two pages is in monochrome, the monochrome page count increases by two.	
Reset condition	None	None			(1) Replacement of ROM with another one of a different version (2) Change of the shipping destination (3) Execution of MENU RESET of the system maintenance menu (4) Replacement of a CU/PU board(CLP)	
Value storage destination	PU	PU	PU	PU	CU	CU
Menu/MenuMap output	○ (*2)	○	○	○	○	○
EngineMenuMap output	○	○ (*3)	○ (*3)	○ (*3)	–	–

*1. Each of the count is updated at the end of each job or each of four pages; however, the count is not updated if the power is turned off when any page from page one through page three of a job of four or more pages is being printed.

*2. It is shown in the header of MenuMap.

*3. EngineMenuMap outputs Engine Menu Print (the first page) and Engine EEPROM Dump Print (the last page), and the number of sheets of paper fed from each tray is described only in the latter one (DUMP page only).

A4/Letter conversion table

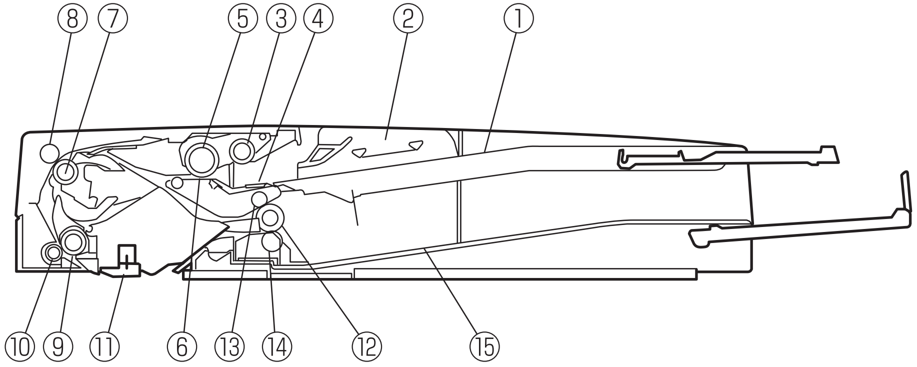
Each count shall increase, in relation to every sheet of paper, by the values in the table below.

Paper size	Simplex	Duplex
LETTER	1	2
EXECUTIVE	1	2
LEGAL14	1	2
LEGAL13.5	1	2
LEGAL13	1	2
A4	1	2
A5	1	2
A6	1	-
B5	1	2
COM-9	1	-
COM-10	1	-
MONARCH	1	-
DL	1	-
C5	1	-
Postcard	1	-
Double-postcard	1	-
Custom	1	2
Custom, Length > 210 mm	2	4
Custom, Length ≥ 900 mm	4	-
Envelope (Choukei 3)	1	-
Envelope (Choukei 4)	1	-
Envelope (Youkei 4)	1	-
Envelope (Envelope A4)		
INDEXCARD	1	-

2.3 Image Scanning process

2.3.1 Structure and process of RADF

2.3.1.1 Cross-section view


⑧
⑦
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③
④
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⑫
⑮

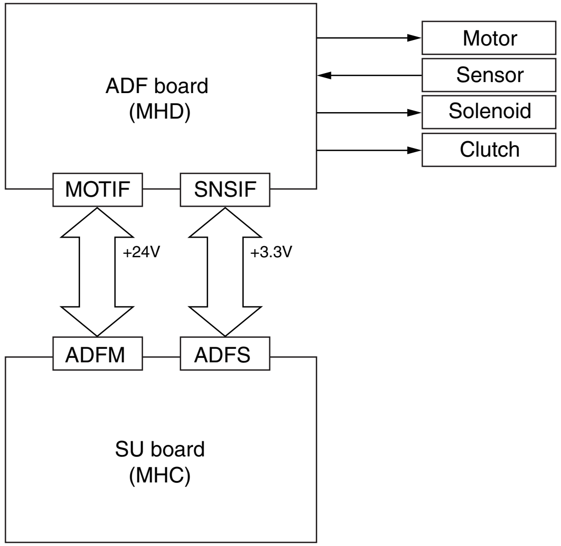
① Paper tray
② Paper guide
③ Pick-up roller
④ Friction pad
⑤ Feed roller
⑥ Separation pad
⑦ Transfer roller
⑧ Pinch roller
⑨ Regist roller
⑩ Pressure roller
⑪ Paper weight
⑫ Exit roller
⑬ Upper pinch roller
⑭ Lower pinch roller
⑮ Paper stocker

2.3.1.2 Electrical configuration

Electrical circuit configuration

This Scanner is controlled by the SU board(MHC).

The ASIC mounted on the SU board(MHC) control the DC load devices such as motor, solenoid and clutch via the ADF board(MHD), in dependance of the sensor signals and control signals from the CU/PU board(CLP) not to be shown in the below figure.

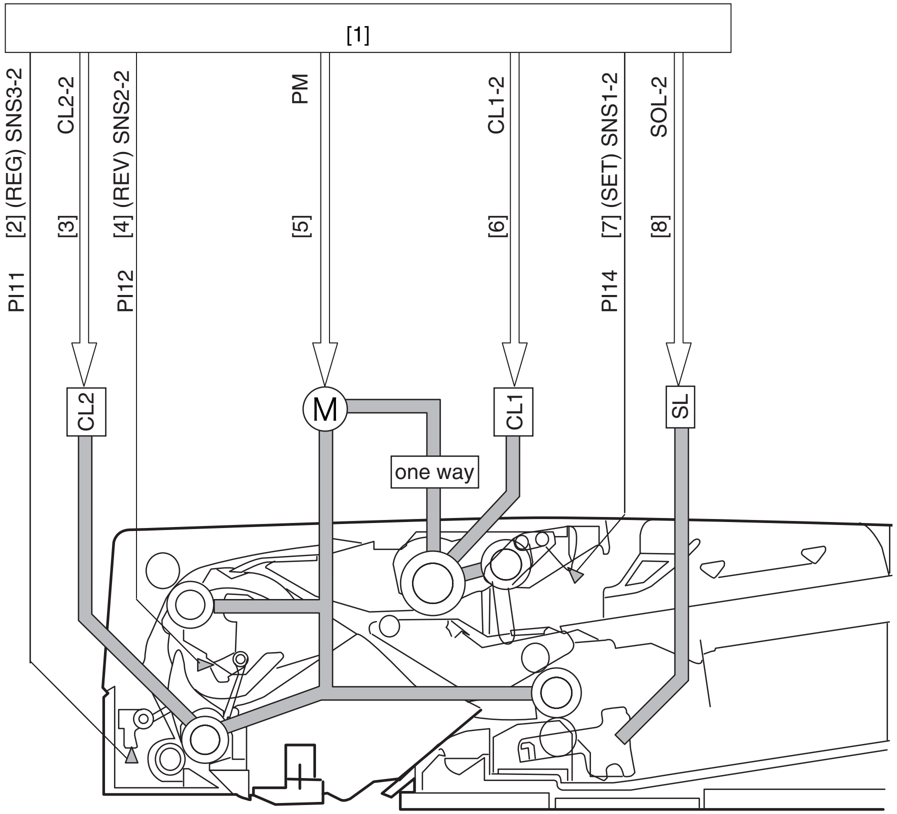

ADF board
(MHD)
Motor
Sensor
Solenoid
Clutch
MOTIF
SNSIF
+24V
+3.3V
ADFM
ADFS
SU board
(MHC)

2.3.1.3 Fundamental operations

Drive force trasmission diagram

The MFP is a document feed device of skim reading only.

Drive force diagram of the MFP is shown below.



- [1] ADF board(MHD)
- [2] Document detection signal
- [3] Regist clutch signal
- [4] Document detection signal
- [5] Feed and transport motor drive signal
- [6] Feed clutch signal
- [7] Document set signal
- [8] Gear change solenoid signal

Overview of operation modes

There are four operation modes that are executed by the MFP. The respective operation modes are executed in accordance with the instructions given by the connected equipment to implement the print operation.

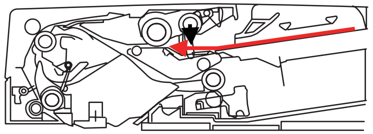
Name of the operation modes, the overview of the operation and the corresponding print modes are shown in the following table.

Name of the operation modes	Overview of the operation	Supporting print modes
[1] Normal direction feed paper/Unload paper	Document is fed and scanned. Upon completion of scan, document is unloaded as it is.	Single-sided document → Single-sided print Single-sided document → Both-sided print (This operation is performed in both cases when documents of same width and different width are used.)
[2] Normal direction feed paper/ Inverted unload paper	Document is fed and scanned. Upon completion of scan, document is inverted and unloaded.	Both-sided document → Both-sided print Both-sided document → single-sided print (This operation is performed in both cases when documents of same width and different width are used.)

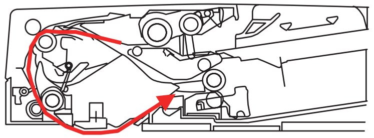
Normal direction feed paper and unload paper (single-sided document → single sided print) operation

Outline of document flow is shown below.

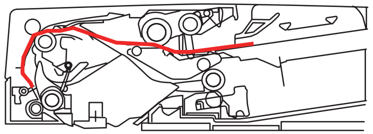
Supplement : When a single-sided document is selected, this operation is performed regardless of the same size mixed documents or different sizes mixed documents.



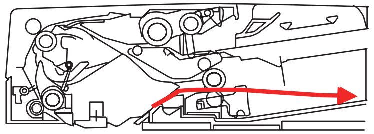
Feeding paper



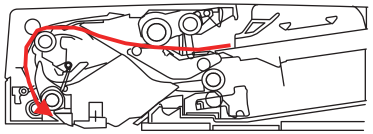
Scanning



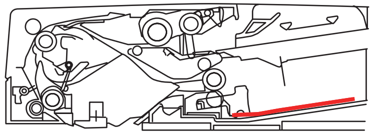
Loop creation



Discharging paper



Scaning stand-by

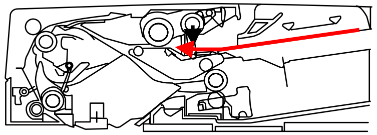


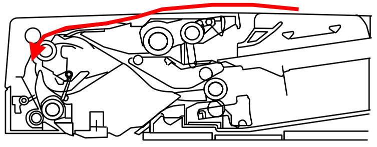
Job end

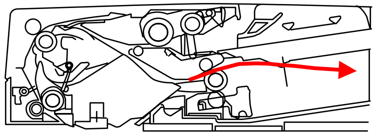
Normal direction feed paper/Inverted unloading of paper (both-sided document → both sided print) operation

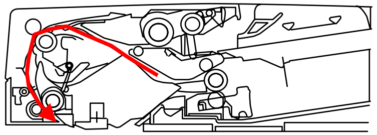
Outline of document flow is shown below.

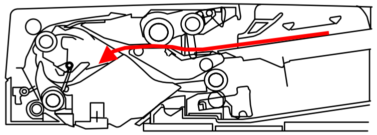
Supplement : When a both-sided document is selected, this operation is performed regardless of the same size mixed documents or different sizes mixed documents.

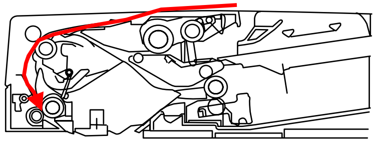

Feeding paper

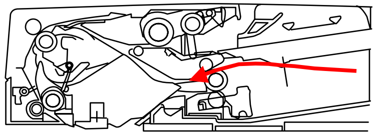

Inversion

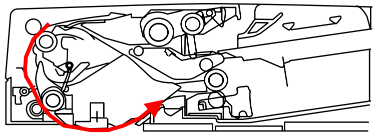

Transport

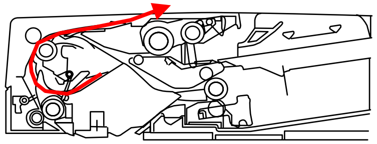

Scaning stand-by

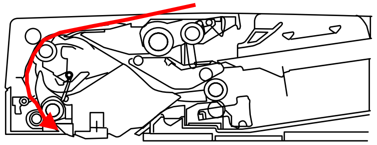

Transport

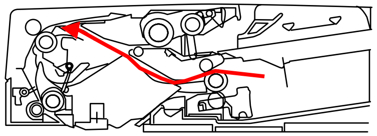

Loop creation

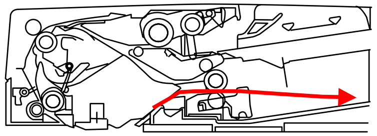

Inversion

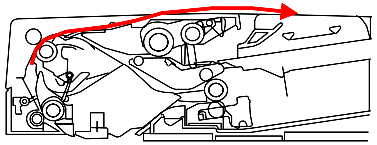

Scanning

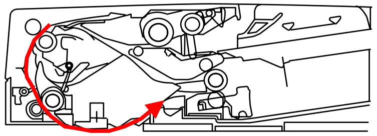

Transport

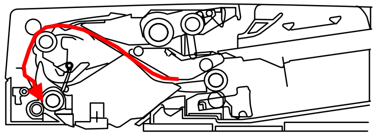

Scaning stand-by

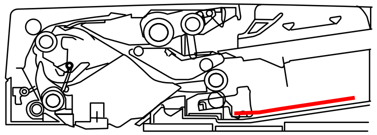

Transport


Discharging paper


Transport


Scanning

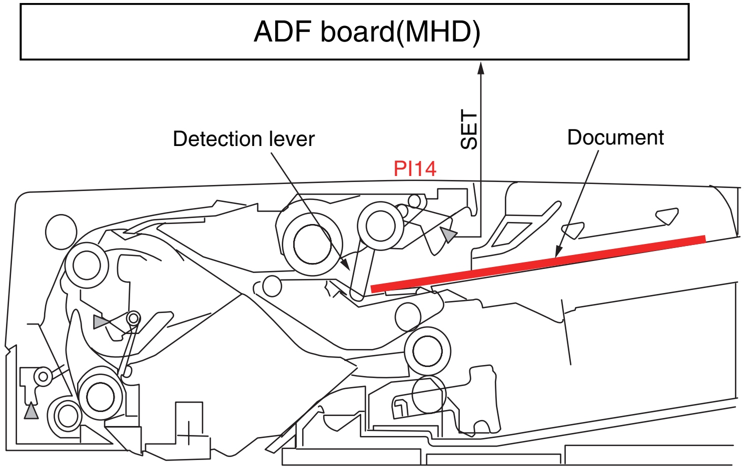

Loop creation


Job end

2.3.1.4 Document detection

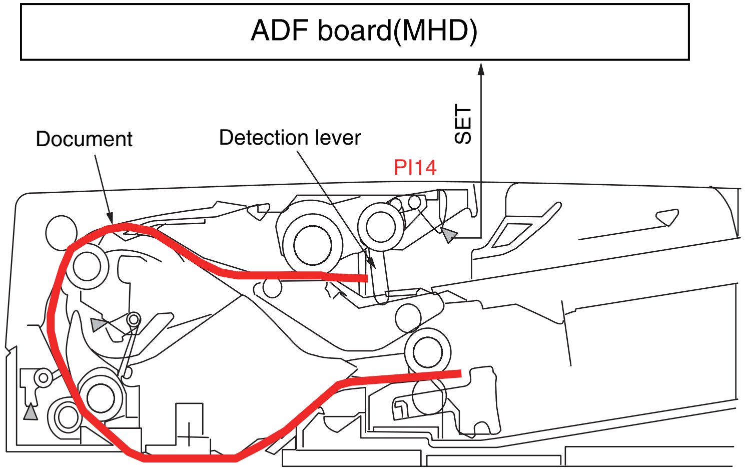
Document present/absent detection

Document present/absent detection on the document tray is performed by document set sensor (PI14). When a document is placed on th edocument tray, the detection lever moves together with the light-shielding plate so that photo interrupter that has been passing the light, shut down the light. Thus, the document set sensor (PI14) issues the document detection signal (SET) telling that a document is set, to the connected equipment via the ADF board(MHD).



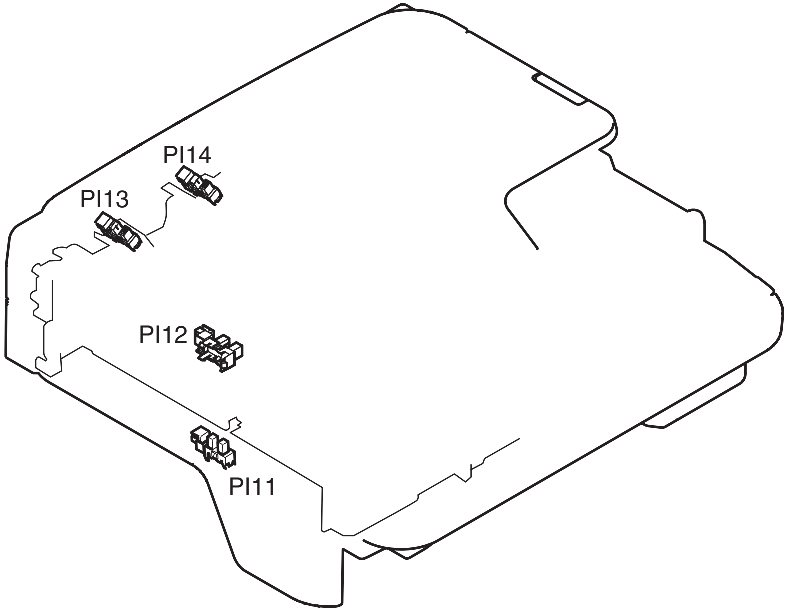
Detection of final document

The document set sensor (PI14) detect if the document that has started of the final document has passed the set sensor lever, the detection lever moves together with the light-shielding plate so that the photo interrupter that has been shutting down the light, passes the light. Thus, the document set sensor (PI14) issues the document set detection signal (SET). Telling that the document under feeding is the final document, to the connected equipment via the ADF board(MHD).



2.3.1.5 Jam detection

Document jam is detected by the sensors shown in the illustration.Check timing of the document jam detection has already been memorized in the ROM of the sensor main PCB beforehand so that jam occurrence can be judged from the information if a document exits or not, at the corresponding sensor block.



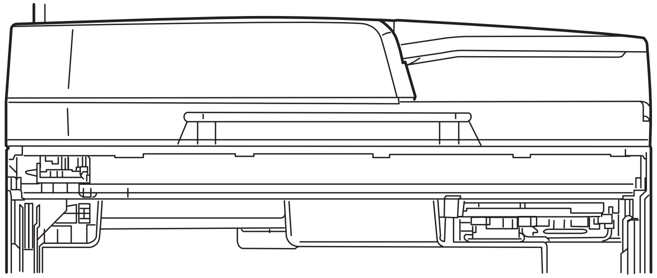
PI11 : Regist paper sensor
PI12 : Reverse paper sensor
PI13 : Cover open/close sensor
PI14 : Document set sensor

2.3.2 Document table structure

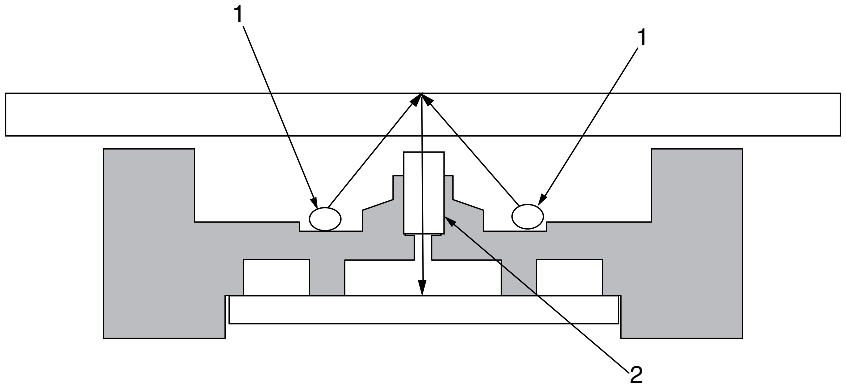
2.3.2.1 Overview

Flatbed unit consist of Cover-Top-Assy, Frame-Bottom-Assy, Carriage-Assy and Flatbed drive block.

The lamp (LED) is located on top of the Carriage-Assy. The light imadiated by the lamp (LED) rodrenze in this order and reaches the CMOS Sensor.



2.3.2.2 Exposure block



1. Lamp

LED(R,G,B) is used toirradiate light to document

2. Rod lens

The reflected light from document is again reflected to the CMOS sensor

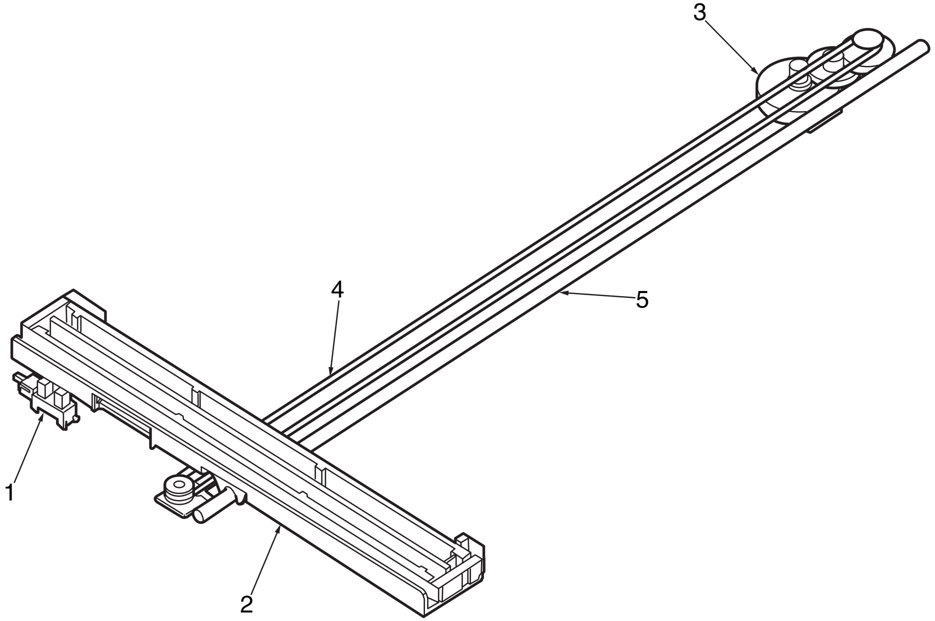
2.3.2.3 Carraige-Assy drive mechanism

Carriage-Assy drive mechanism

Carriage-Assy performs the function of irradiating the lamp light uniformly over a document while moving its position.

The carriage-Assy is driven by a belt which is driven by the FB motor. Scanner moves at the scan speed corresponding to the respective magnification ratios that are set with reference to the standard scanning speed.

Home position of the carriage-Assy is the position where the home sensor is located. The home position is the reference position of the scanning operation.



1	Home Sensor
2	Carriage Assy
3	FB Motor
4	Belt
5	Shaft

3. MFP INSTALLATION

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3.2 MFP Unpacking Procedure 58
3.3 MFP Installation Instructions 59
3.4 Packed Units and Attachments 60
3.5 Assembly Procedure 61
3.6 Configuration Page Print 76
3.7 Network Information Print...78
3.8 Connection Procedures...79
3.9 Checking of User Paper...83

3.1 Precautions and Prohibition

⚠Warning

- Do not install the MFP in the vicinity of high temperature or fire.
- Do not install the MFP at the place where a chemical reaction may take place (laboratory, etc.).
- Do not install the MFP near flammable solution like alcohol, thinner, etc.
- Do not install the MFP at the place where a small child can reach.
- Do not install the MFP at an unstable place (unsteady frame, tilted place, etc.).
- Do not install the MFP at a highly humid or dusty place or under the direct sunshine.
- Do not install the MFP under the environment of sea breeze or caustic gas.
- Do not install the MFP at a highly vibrating place.
- When you drop the MFP or damage the cover, remove the power plug from the outlet and contact the Customers' Service Center.
  Electric shock, fire or injury may occur.
- Do not connect the power cord, printer cable and earth wire as otherwise directed by the Manual. A fire may break out.
- Do not insert a thing in the vent hole.
  Electric shock, fire or injury may occur.
- Do not place a cup with water on the MFP.
  Electric shock or fire may occur.
- Do not touch the fuser unit when you open the printer cover.
  Burn may occur.
- Do not throw the toner cartridge or image drum cartridge into fire.
  Burn may occur by the dust explosion.
- Do not use a highly flammable spray near the MFP.
  Fire may break out as there are high temperature parts inside the printer.
- When the cover becomes abnormally hot, a smoke arises or a strange odor comes out, remove the power plug from the outlet and contact the Customers' Service Center.
  Fire may break out.
- When liquid like water drops inside the MFP, remove the power plug from the outlet and contact the Customers' Service Center.
  Fire may break out.
- When a thing like a clip drops inside the MFP, remove the power plug from the outlet and take out that thing.
- Do not operate or disassemble the MFP as otherwise directed in the Manual.
  Electric shock, fire or injury may occur.

⚠Caution

- Do not install the MFP at the place where the vent hole is blocked.
- Do not install the MFP on the shaggy carpet.
- Do not install the MFP at the place with little draught or without ventilation like a room with no window.
- Install the MFP away from the monitor TV.
- When the MFP is to be moved, hold both ends of the printer.
- This MFP weighs about 29kg and should be lifted by 2 or more persons.
- When to switch the power on or while printing, do not come near the paper exit of the MFP.
  Injury may occur.

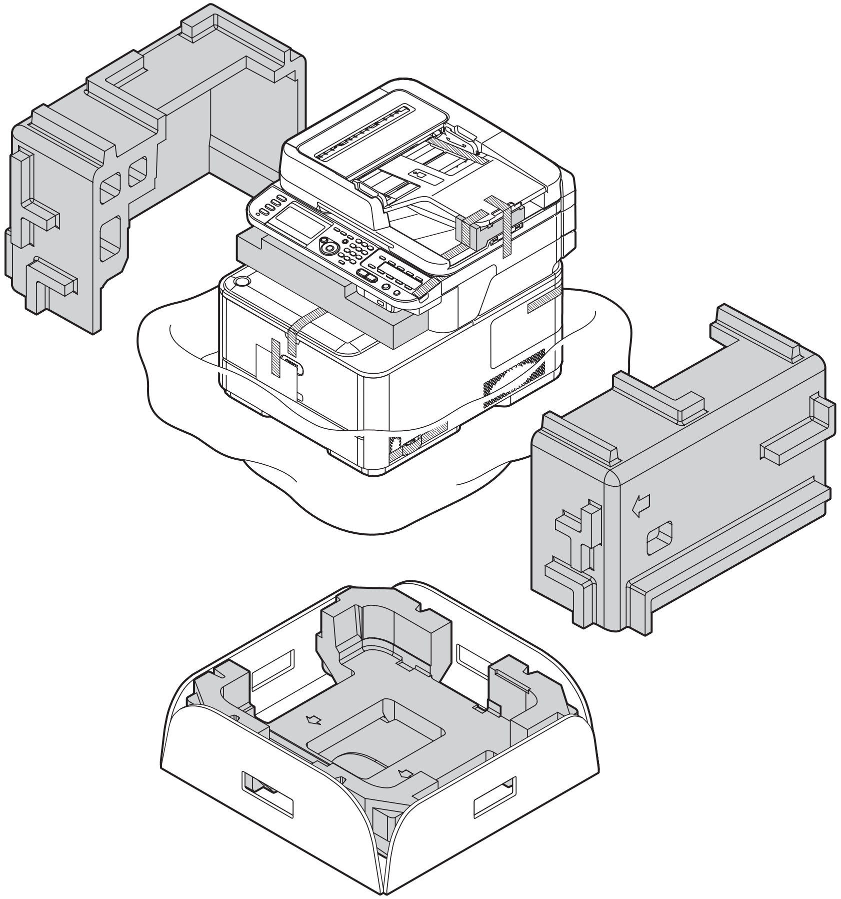
As regards the items of caution, explain to the customer showing the items of caution of the User's Manual. Particularly, explain fully about the power supply cord and earth cable.

3.2 MFP Unpacking Procedure

⚠ **Warning**	Personal injury may occur.	⚠

This MFP weighs about 29kg. So lift it up with 2 or more persons.

- Open the upper lid.
- Take out the accessory box.
- Remove the upper buffer material.
- Take out the equipment.



3.3 MFP Installation Instructions

- Install the MFP at a place under the following temperature and humidity:

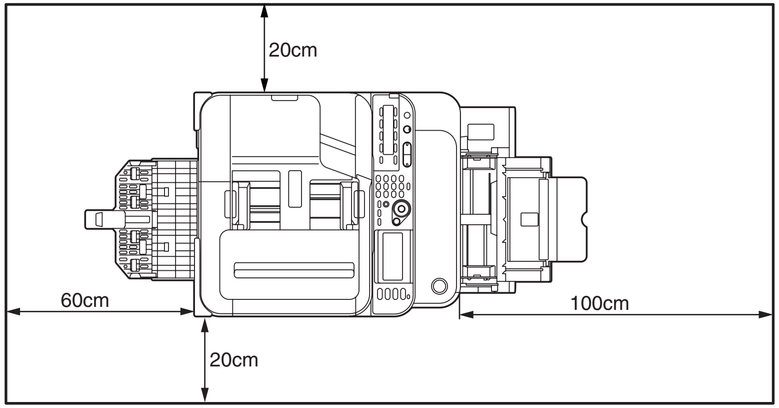
Ambient Temperature	: 10 to 32°C
Ambient Humidity	: 20 to 80% relative humidity
Maximum Wet-Bulb Temperature	: 25°C

- Be careful not to be bedewed.
- When the MFP is to be installed at a place where the humidity is less than 30%, use a humidifier or a static electricity prevention mat.

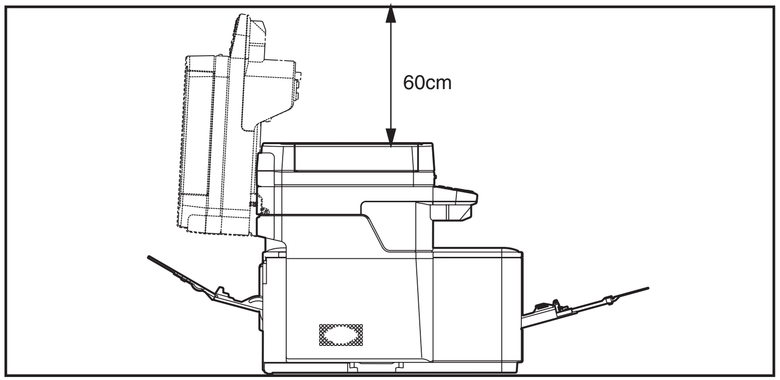
Installation Space

- Place the MFP on a flat desk with enough space for the legs of the MFP.
- Secure enough space around the MFP.

Top View



Side View



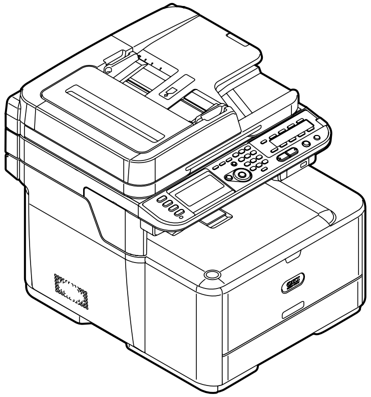
3.4 Packed Units and Attachments

- Confirm whether there are scratches, stains, etc. on the exterior of the MFP.
- Confirm whether there are lacking items, damages, etc. among the accessories.
- If anything unusual is found, contact the user's section in charge and follow its instruction

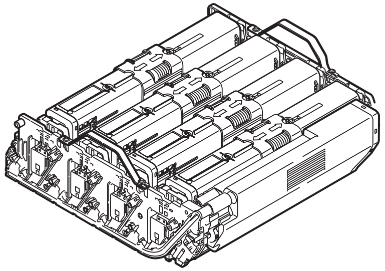
⚠ **Warning**	Personal injury may occur.	⚠

This MFP weighs about 29kg and should be lifted by 2 or more persons.

☐ MFP (main body)



☐ Image Drum Cartridges with Starter Toner Cartridges (installed in the MFP)



Explain to customers that the toner cartridge and the image drum cartridge are separable.

☐ MFP Software CD-ROM

☐ Power Cord

☐ Warranty and Registration Card

☐ Users Manuals

Note! The printer cable is not included in the accessories.

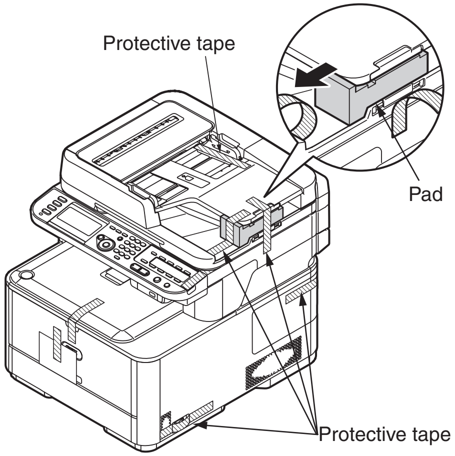
3.5 Assembly Procedure

3.5.1 MFP Main Body

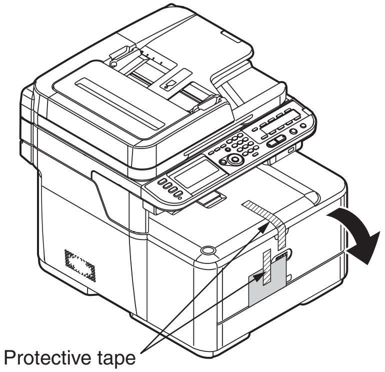
Remove Protective Equipment

(1) Remove the 5 adhesive tapes on the outside of MFP.

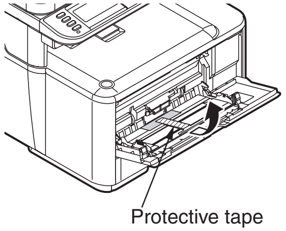
Then remove the protection pad.


Protective tape
Pad
Protective tape

(2) Remove the adhesive tapes and open the MP Tray.

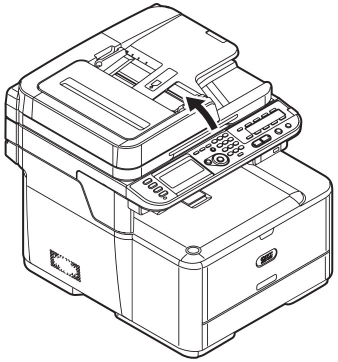

Protective tape

(3) Remove the adhesive tapes and remove the paper.

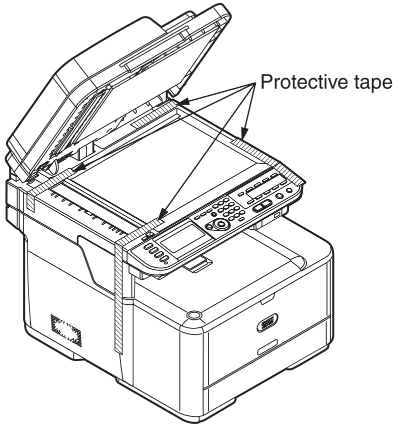

Protective tape

(4) Close the MP Tray.

(5) Open the document glass cover.

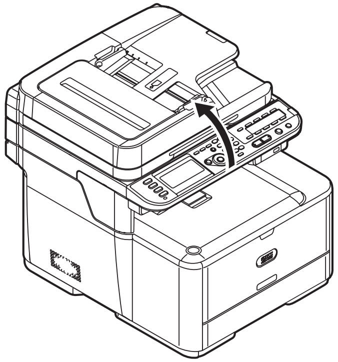


(6) Remove the adhesive tapes.

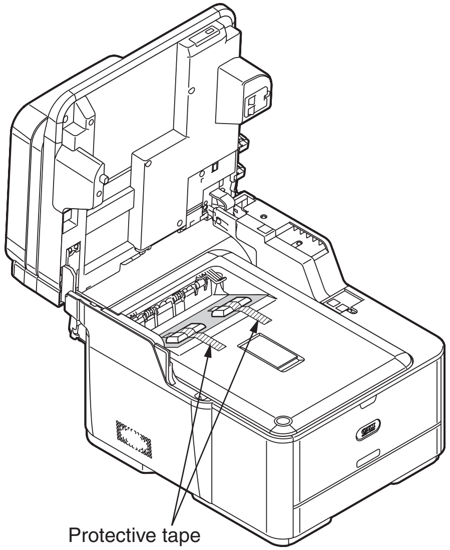

Protective tape

(7) Close the document glass cover.

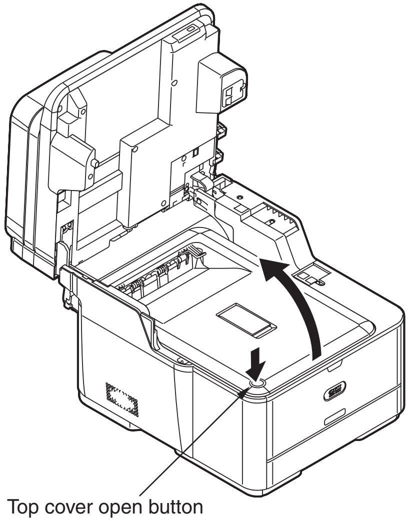
(8) Open the scanner unit.



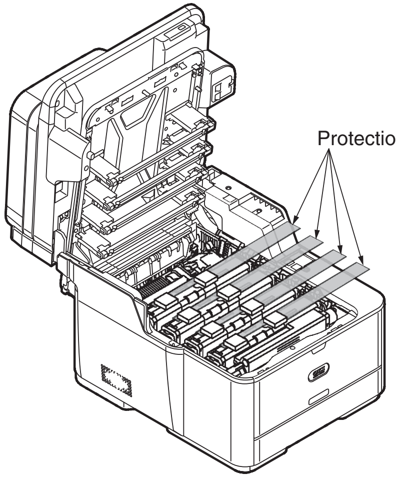
(9) Remove the adhesive tapes, desiccant and film.


Protective tape

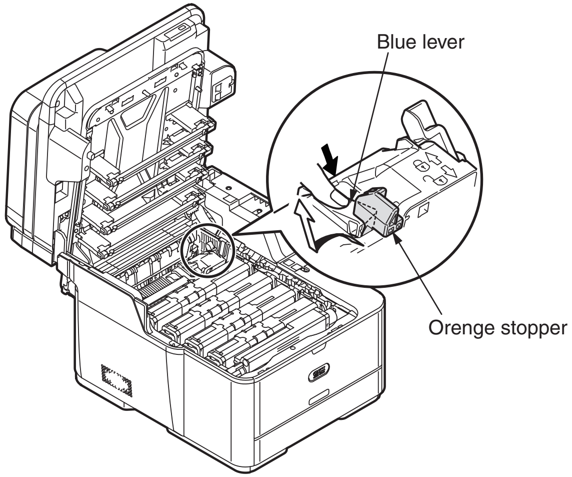
(10) Press the top cover open button and open the top cover.


Top cover open button

(11) Remove the protection sheets.


Protection sheet

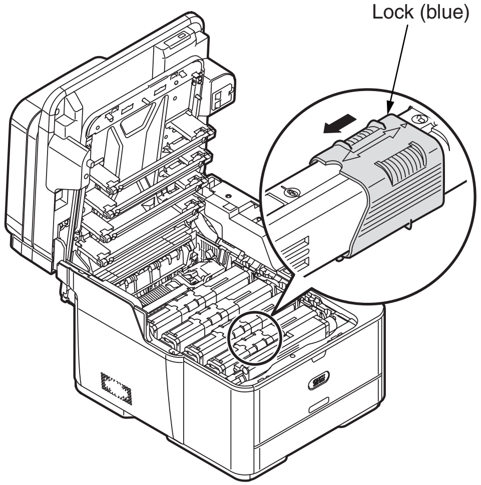
(12) Remove the orange stopper while pressing the blue lever of the fuser unit in the direction of the arrow.


Blue lever
Orenge stopper

Note! Keep the orange stopper, it is necessary to transport it.

Install Image Drum Cartridges

(1) Slide the lock of the each toner cartridge to the left side.



(2) Close the top cover.

(3) Close the scanner unit.

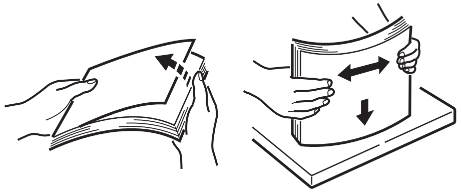
Loading Paper in Tray 1 and Tray 2

The following procedure explains how to load paper in tray 1 or tray 2 (optional).

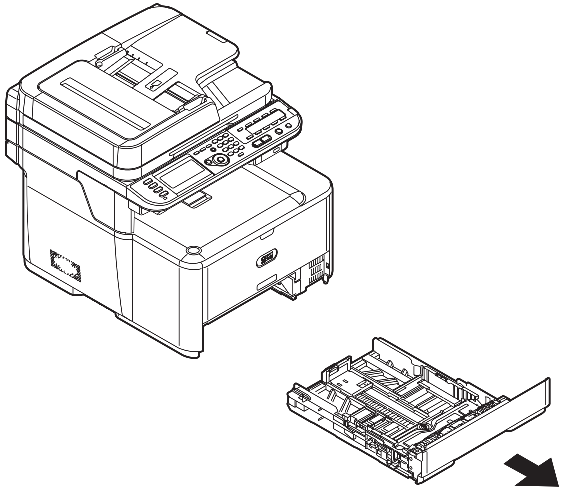
Note! The following procedure uses tray 1 as an example.

Reference To load custom size paper on the tray, need to register the size in [Paper Setup].

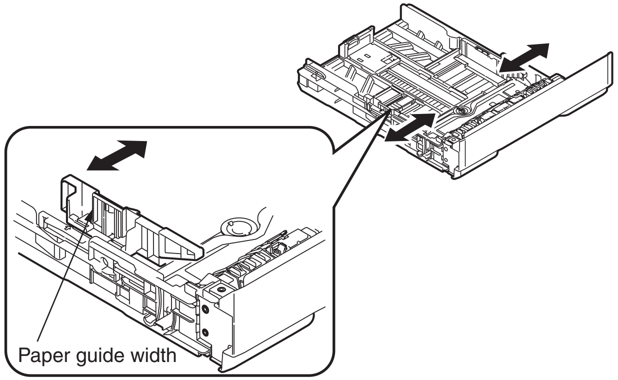
(1) Flex paper back and forth, and then fan it. Straighten the edges of the paper stack on a level surface.



(2) Pull out the paper tray.

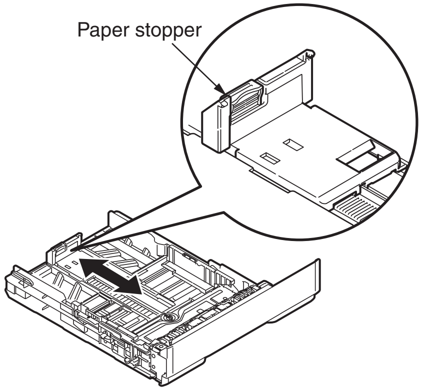


(3) Slide the paper width guide to the width of paper to be loaded.

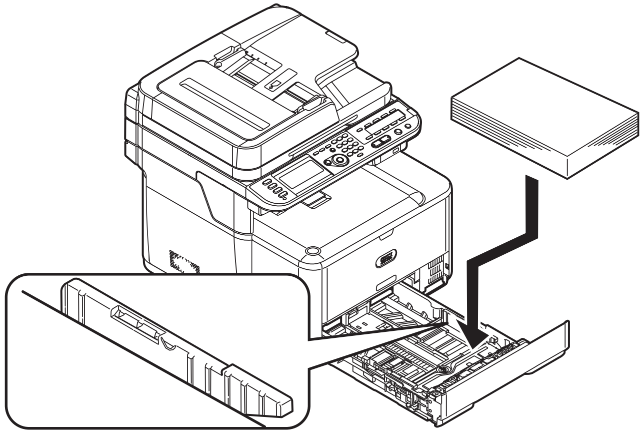


(4) Slide the paper stopper to the length of paper to be loaded.

If loading legal size paper, pull out the sub support and then slide the paper stopper.



(5) Load paper with the print side face down.



Important Do not load paper above the fill line.

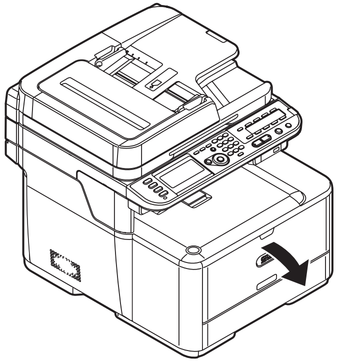
(6) Adjust the paper width guide and the paper stopper to hold the paper in place.

(7) Push the paper tray until it stops.

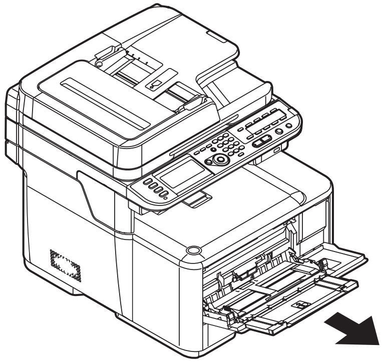
Register the loaded paper on the MFP.

Loading paper in the MP Tray

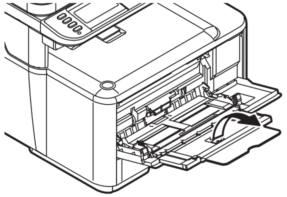
(1) Open the MP tray.



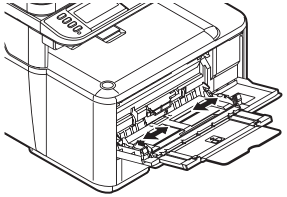
(2) Pull out the paper support.



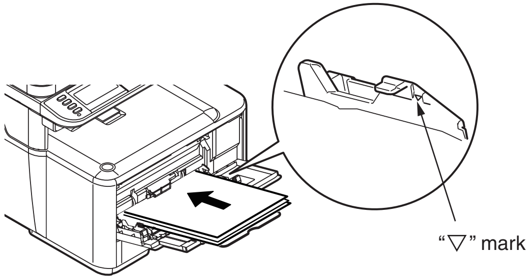
(3) Pull out the sub support.



(4) Adjust the paper width guide to the width of paper to be loaded.



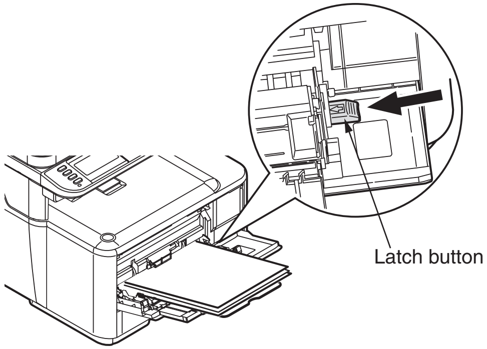
(5) Insert the paper with the print side face up until its edge touches the paper feed entrance.



Note! When loading envelopes on the MP tray, load them face up with short edge into the machine. The flap should come to the right side to the feeding direction.

(6) Adjust the paper width guide to hold the paper in place.

(7) Press the tray latch button.



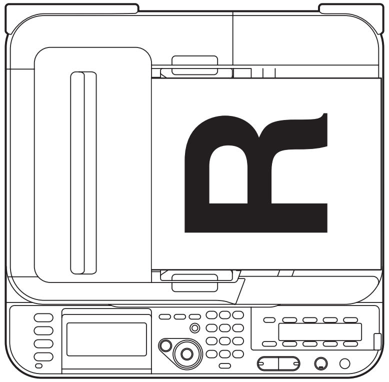
Register the loaded paper on the MFP.

Important
- Do not load paper above the fill line.
- Do not load paper of different sizes, types or weights at the same time.
- When adding paper, remove the paper on the MP tray and straighten the edges of both stacks of paper, and then load them again.
- Do not put anything other than paper for printing. Do not apply too much pressure on the MP tray.

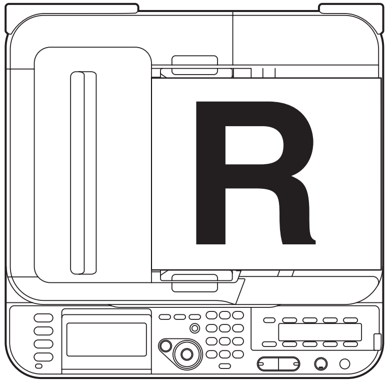
Loading Documents on the ADF

(1) Load your documents face up on the ADF.

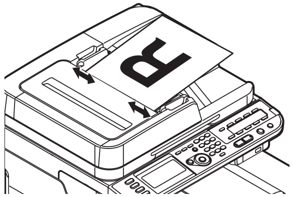
If your documents are portrait, load them with the top edge of the documents in first.



If your documents are landscape, load them with the left edge of the documents in first.



(2) Adjust the document guides to the width of your documents.

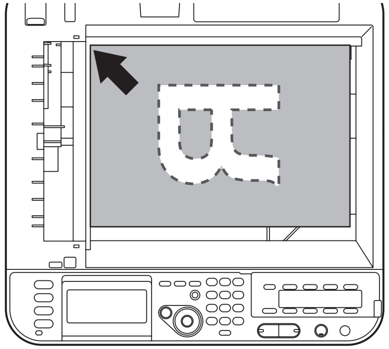


Loading Documents on the Document Glass

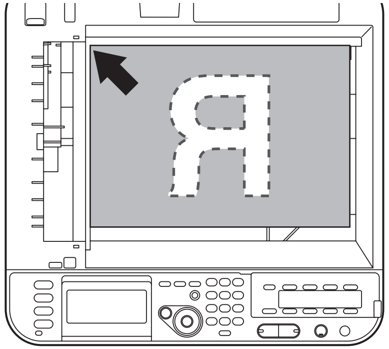
(1) Lift and open the document glass cover.

(2) Place a document face down on the document glass.

If your document is portrait, align its top edge to the upper-left corner of the glass.



If your document is landscape, align its right edge to the upper-left corner of the glass.



(3) Close the document glass cover gently.

Reference If you want to use [N-in-1], [Sort] or [DuplexCopy] functions, change the [Document Direction] setting according to the direction of your document to get the output you want. The default setting is [Portrait].

3.5.2 Power Cable Connection

Conditions for Power Supplies

- Observe the following conditions:

  Alternate Current (AC) : 110 ~127VAC(Range 99~140VAC)/220~240VAC(Range 198~264VAC)

  Power Supply Frequency : 50Hz or 60Hz±2%
- Use a voltage regulator when the power supply is not stable.
- The maximum power consumption of this MFP is 1170W. Confirm that the power supply has sufficient extra capacity.

⚠ Warning It may expose you to electric shocks or cause a fire.

- Never fail to switch off the power supply at the time of connection or removal of the electric cord and earth cable.
- Always connect the earth cable to the earth terminal equipped only for that purpose. Never connect the earth cable with water pipe, gas pipe, telephone cable earth terminal, lightening rod, etc.
- Always grasp the power plug at the time of connection and removal of the electric cord.
- Always make sure that the electric plug is inserted fully into the outlet.
- Do not connect or disconnect the electric plug with the wet hand.
- Do not install the electric cord at the place liable to be stepped on and do not put things on the electric cord.
- Do not bundle up or tie up the electric cord
- Do not use the damaged electric cord.
- Do not put many loads on one electric outlet.
- Do not connect this MFP to the same outlet with other electric machines. Particularly, erroneous operation may occur by electric noise when the same outlet is shared by the air conditioner, duplicator, shredder, etc. at the same time. When the same outlet had to be used, use a noise filter or noise cut transformer on the market.
- Use the attached electric cord only.
- Do not use an extension cord. Use the cord of over rating 15A if you had to use one.
- When you use the extension cord, the MFP may not operate normally due to the drop of AC voltage.
- Do not shut down the power supply or remove the power plug while printing.
- Disconnect the power cord when the MFP would not be used for some long while due to consecutive holidays or journey.

As to the connection of the electric cord and earth cable, explain fully to the customer showing the User's Manual.

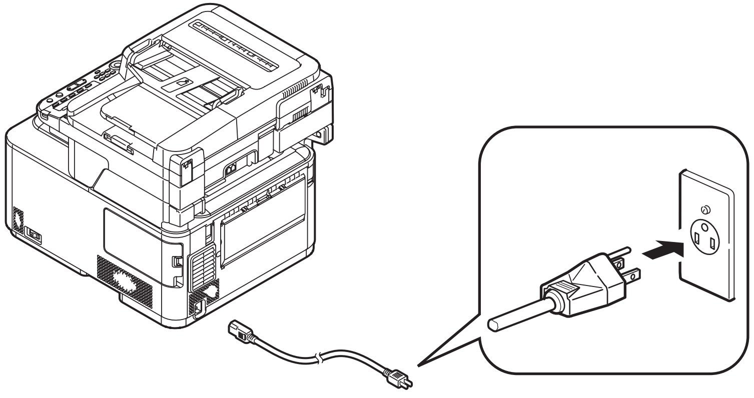
Connect Power Supply Cord

Note! Be certain the power switch is placed in the OFF (O) position.

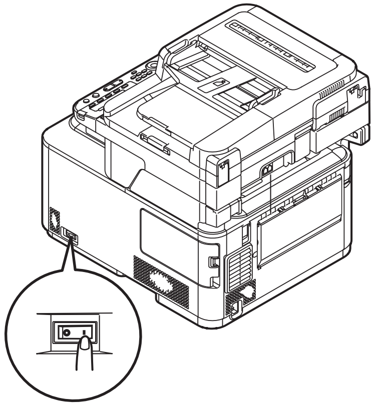
(1) Insert the electric cord in the MFP.

(2) Connect the earth wire to the earth terminal of the AC power source outlet.

(3) Connect the AC power cord insertion plug to the AC power source outlet.



Press ON (I) of Power Switch



3.5.3 Installation of Optional Components

This section explains how to install options. The following options are available:

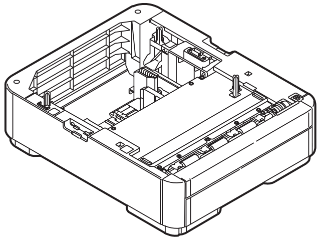
- Second tray unit
- Additional RAM (256 MB or 512 MB)
- 16GB SD Memory card (for MC561 only)

Important Be sure to turn off your machine and unplug the AC cable and Ethernet or USB cable before installing options. Installing options while the MFP is turned on may damage the MFP and options.

3.5.3.1 Second Tray Unit

Installing a Second Tray Unit

Install an optional second tray unit (tray 2) when increase the paper capacity of the MFP. After installation, need to configure the printer driver settings.



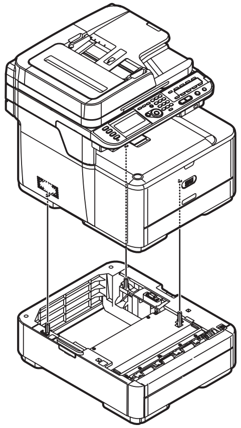
Important For Mac OS X, if you have connected the MFP to a computer via USB, you do not need to configure the printer driver settings, as the printer driver automatically obtains the information of the installed options.

Installation

⚠ **Warning**	At least two people are needed to lift the MFP safely.

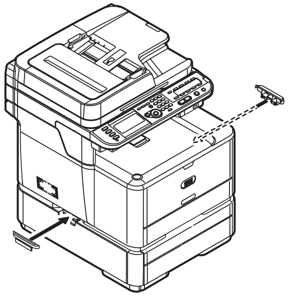
(1) Turn off the MFP, and then unplug the AC cable and the Ethernet or USB cable.

(2) Lift the MFP and align the three pins of the second tray unit with the holes at the bottom of the MFP.



(3) Place the MFP on the second tray unit gently.

(4) Attach the lock parts.



(5) Plug the AC cable and Ethernet or USB cable into the MFP, and then turn on the power switch.

Printer Driver Configuration

The procedure differs according to which driver installed on the computer.

Important
- You must be logged in as an administrator to complete this procedure.
- Windows PCL XPS printer driver is not available for Windows Server 2003, Windows XP, and Windows 2000.

Reference The printer driver needs to be installed on the computer before doing this procedure.

For Windows PCL/PCL XPS Driver

Note!
- This procedure uses Windows 7 as an example. The display may differ depending on the operating system.
- This procedure uses MC561 PCL driver as an example.

(1) Click [Start] > [Devices and Printers].

For Windows Server 2008 and Windows Vista, click [Start] → [Control Panel] → [Printer].

For Windows XP/Windows Server 2003, click [Start] → [Printers and Faxes].

For Windows 2000, click [Start] → [Settings] → [Printers].

(2) Right-click the OKI MC561 icon and select [Printer properties].

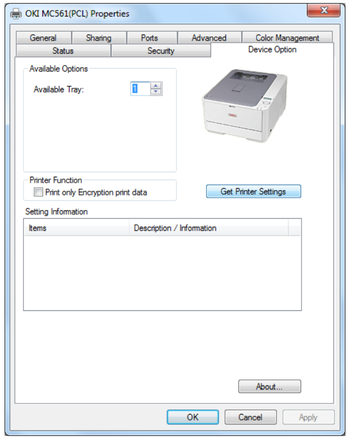
For Windows Server 2008, Windows Vista, Windows Server 2003, Windows XP, and Windows 2000, select [Properties].

For Windows 7, if you have installed multiple printer drivers, select [Printer properties] → [OKI MC561 (PCL)] or [OKI MC561 (PCL XPS)].

(3) Select the [Device Option] tab.

(4) For the network connection, select [Get Printer Settings].

For the USB connection, enter "2" (the total number of trays installed on your machine) for [Available Tray] ([Installed Paper Trays] for PCL XPS driver).


OKI MC561(PCL) Properties
General
Sharing
Ports
Advanced
Color Management
Status
Security
Device Option
Available Options
Printer Function
Get Printer Settings
Setting Information
Items
Description / Information
About...
OK
Cancel
Apply

Available Tray: 1

☐ Print only Encryption print data

(5) Click [OK].

For Windows PS Driver

Note! This procedure uses Windows 7 as an example. The display may differ depending on the operating system.

(1) Click [Start] → [Devices and Printers].

For Windows Server 2008 and Windows Vista, click [Start] → [Control Panel] → [Printer].

For Windows XP/Windows Server 2003, click [Start] → [Printers and Faxes].

For Windows 2000, click [Start] → [Settings] → [Printers].

(2) Right-click the [OKI MC561 (PS)] icon and then select [Printer properties].

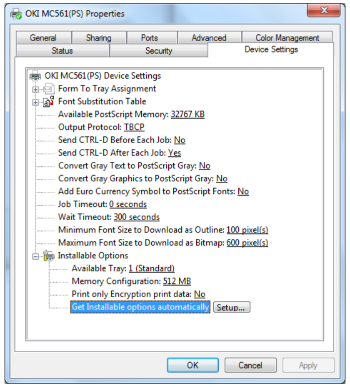
For Windows Server 2008, Windows Vista, Windows Server 2003, Windows XP, and Windows 2000, select [Properties].

For Windows 7, if you have installed multiple printer drivers, select [Printer properties] → [OKI MC561 (PS)].

(3) Select the [Device Settings] tab.

(4) For the network connection, select [Get installable options automatically] under [Installable Options], and then click [Setup].

For the USB connection, select [2-Tray Module] for [Available Tray] under [Installable Options].


OKI MC561(PS) Properties
General
Sharing
Ports
Advanced
Color Management
Status
Security
Device Settings
OK
Cancel
Apply
Setup...

OKI MC561(PS) Device Settings
- Form To Tray Assignment
- Font Substitution Table
- Available PostScript Memory: 32767 KB
- Output Protocol: TBCP
- Send CTRL-D Before Each Job: No
- Send CTRL-D After Each Job: Yes
- Convert Gray Text to PostScript Gray: No
- Convert Gray Graphics to PostScript Gray: No
- Add Euro Currency Symbol to PostScript Fonts: No
- Job Timeout: 0 seconds
- Wait Timeout: 300 seconds
- Minimum Font Size to Download as Outline: 100 pixel(s)
- Maximum Font Size to Download as Bitmap: 600 pixel(s)
- Installable Options
  - Available Tray: 1 (Standard)
  - Memory Configuration: 512 MB
  - Print only Encryption print data: No
  - Get Installable options automatically

(5) Click [OK].

For Mac OS X PS Driver (Mac OS X 10.3.9 to 10.4.11)

Note! • This procedure uses Mac OS X 10.4.11 as an example.

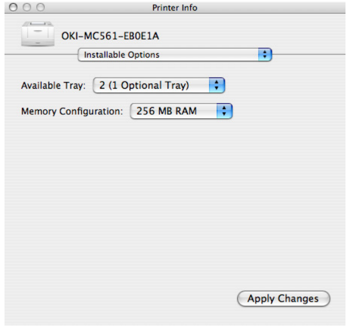
• This procedure uses MC561 driver as an example.

(1) From [Go], select [Utilities] and then double-click [Printer Setup Utility].

(2) Select the name of your machine and then click [Show Info].

(3) Select [Installable Options].

(4) Select the total number of trays installed on your machine for [Available Tray], and then click [Apply Changes].


Printer Info
OKI-MC561-EB0E1A
Installable Options
Apply Changes

Available Tray: 2 (1 Optional Tray)

Memory Configuration: 256 MB RAM

(5) Close [Printer Info].

For Mac OS X PS Driver (Mac OS X 10.5 and 10.6)

Note! • This procedure uses Mac OS X 10.6 as an example.

• This procedure uses MC561 driver as an example.

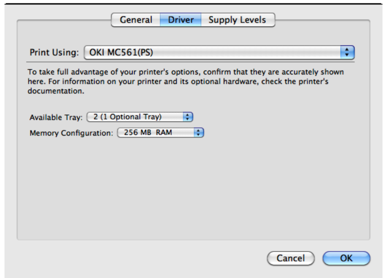
(1) Select [System Preferences] from the Apple menu.

(2) Click [Print & Fax].

(3) Select the name of your machine and then click [Options & Supplies].

(4) Select the [Driver] tab.

(5) Select the total number of trays installed on your machine for [Available Tray], and then click [OK].


General
Driver
Supply Levels
Cancel
OK

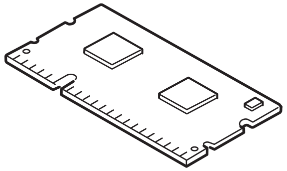
Print Using: OKI MC561(PS)

To take full advantage of your printer's options, confirm that they are accurately shown here. For information on your printer and its optional hardware, check the printer's documentation.

Available Tray: 2 (1 Optional Tray)

Memory Configuration: 256 MB RAM

3.5.3.2 Extension Memory Installation



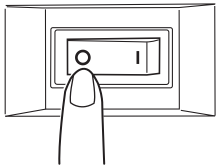
Type	On-board	Memory slot	Total
N/A (Standard)	256MB	N/A	256MB
MEM256D	256MB	256MB	512MB
MEM512D	256MB	512MB	768MB

Note! You must use genuine Oki Original. Otherwise, the memory will not work.

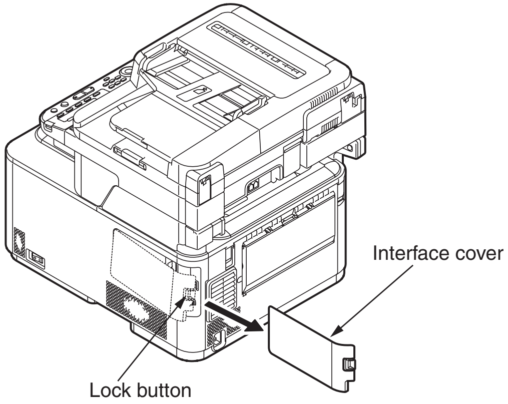
Switch the power supply of the MFP off and pull out the electric cord.

Note! If installed with the switch on, an electric shock or a trouble to the MFP may occur.

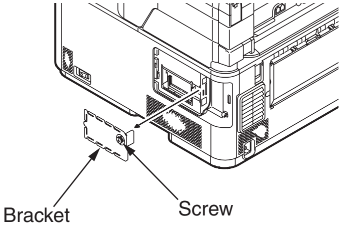
Push the lock button on the right side of the machine while pressing the lock button.



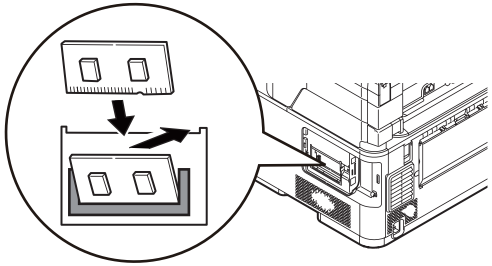
Touch a metallic part of the machine to remove static electricity from your body.



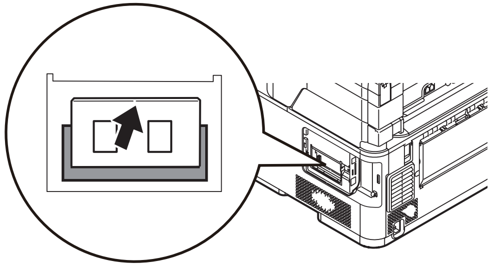
Loosen the screw and then remove the bracket..



Insert the additional RAM.



Push the additional RAM until it sets in place.



- Attach the bracket and then tighten the screw.
- Attach the interface cover.
- Plug the AC cable and Ethernet or USB cable into the MFP, and then turn on the power switch.
- Press the <SETTING> key on the control panel.
- Press to select [View Information] and press .
- Press to select [System] and press .
- Check that the value of [Total Memory] has increased.

Note! If the value of [Total Memory] has not increased, turn off the MFP and unplug the AC cable and Ethernet or USB cable, and then reinstall the additional RAM.

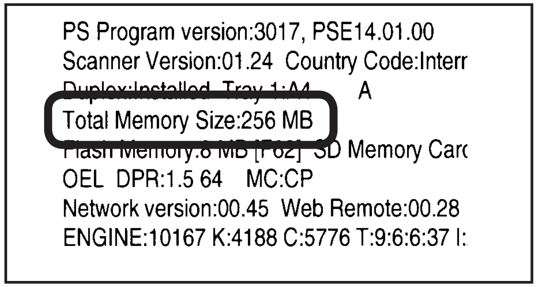
Confirm the Recognition of Memory

In order to confirm that the items of option are correctly installed, conduct the menu map printing referring to "3.6 Configuration Page Print".

(1) Confirm Recognition of Additional Memory

Confirm the contents of the configuration pages.

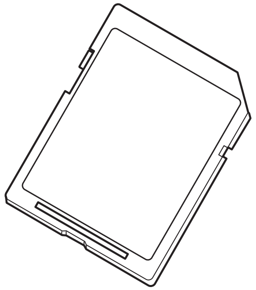
Confirm the total memory size displayed as "TOTAL MEMORY SIZE" in the header portion.



```
PS Program version:3017, PSE14.01.00
Scanner Version:01.24  Country Code:Interr
Duplex:Installed  Tray 1:A4        A
Total Memory Size:256 MB
Flash Memory:8 MB [F62]  SD Memory Carc
OEL  DPR:1.5 64    MC:CP
Network version:00.45  Web Remote:00.28
ENGINE:10167 K:4188 C:5776 T:9:6:6:37 I:
```

3.5.3.3 16GB SD Memory card (for MC561 only)

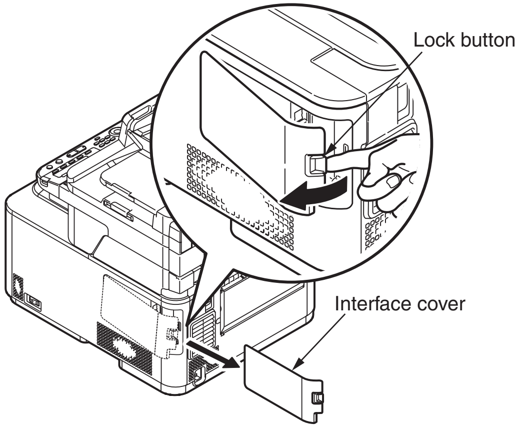
Install optional 16GB SD memory card instead of pre-installed 4GB SD memory card to increase the capacity.



Note!
- Use only genuine Oki Data products. The performance cannot be guaranteed when using other products.
- The card cannot be used with its write-protect switch (to guard against accidental erasure on the card) in the unlocked position. To use the card, be sure to place the switch in the locked position.

(1) Switch the power supply of the MFP off and pull out the electric cord.

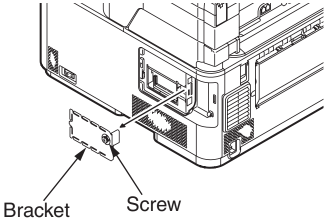
(2) Push the lock button on the right side of the machine while pressing the lock button.


Lock button
Interface cover

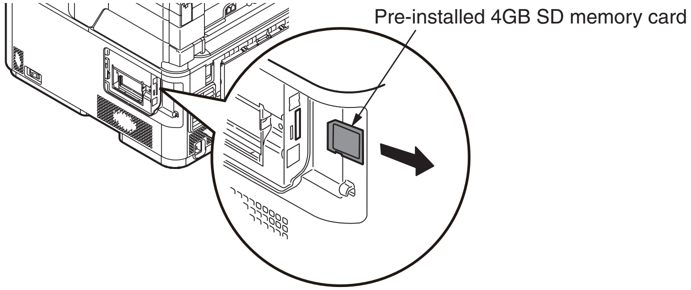
(3) Pull out the Ethernet/USB cable.

(4) Touch a metallic part of the machine to remove static electricity from your body.

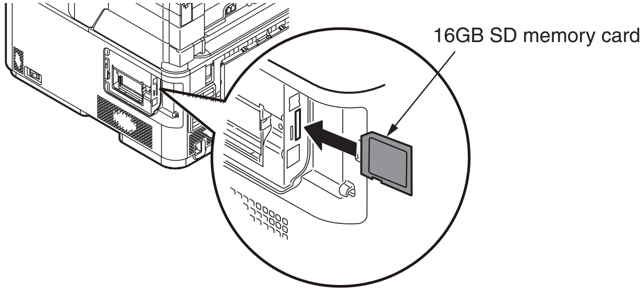
(5) Loosen the screw and then remove the bracket.


Bracket
Screw

(6) Push the SD Memory Card and remove the SD Memory Card.


Pre-installed 4GB SD memory card

(7) Insert the 16GB SD Memory Card.


16GB SD memory card

(8) Attach the bracket and then tighten the screw.

(9) Plug the Ethernet/USB cable into the MFP.

(10) Attach the interface cover.

(11) Plug the AC cable into the MFP.

(12) Press the <SETTING> key on the control panel.

(13) Press ▽ to select [View Information] and Press "OK".

(14) Press ▽ to select [System] and Press "OK".

(15) Check the value of [SD Memory] has [15GB].

Note!
- The value of [SD Memory Card] has not indicate [16GB].
- If the value of [SD Memory Card] has not increased, turn off the machine and unplug the AC cable and Ethernet/USB cable, and then reinstall the SD Memory Card.

3.6 Configuration Page Print

Make sure that the MFP operates normally.

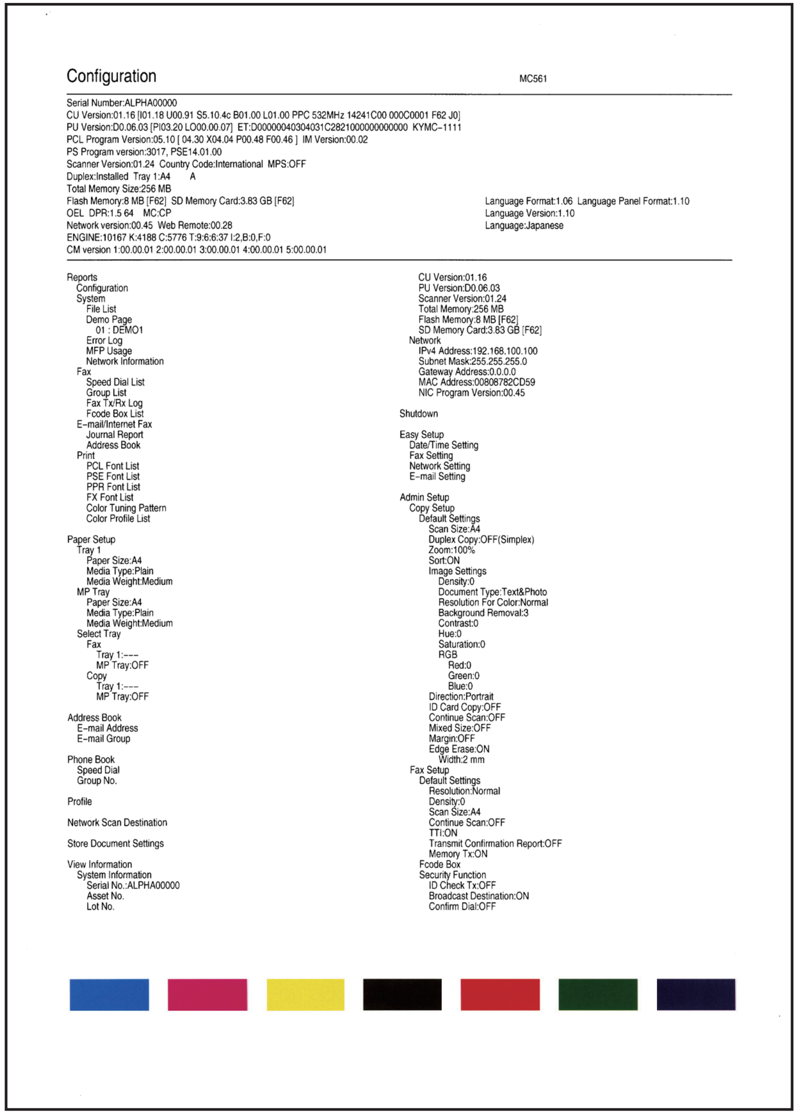
(1) From the panel, press "Setting" button.

(2) Select "Reports".

(3) Select "Configuration".

(Press the down button to go to "Configuration" and then press the right button.)

(Sample) MC561



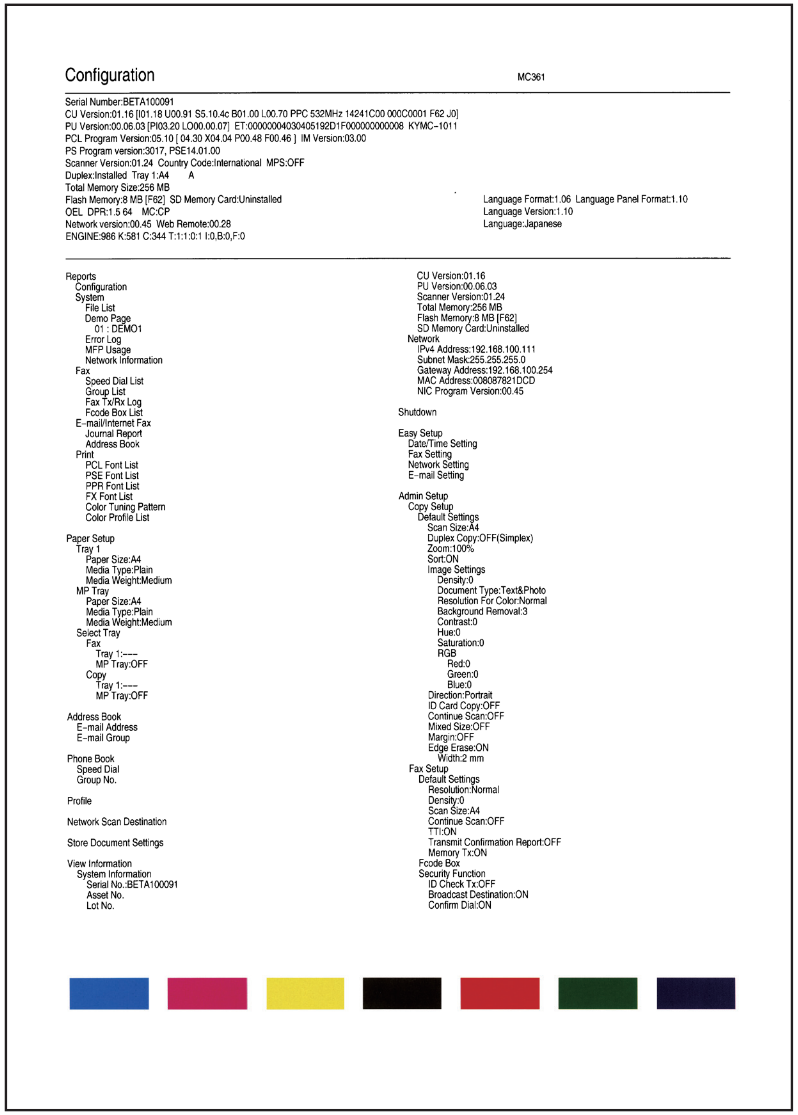
Configuration MC561

```
Serial Number:ALPHA00000
CU Version:01.16 [I01.18 U00.91 S5.10.4c B01.00 L01.00 PPC 532MHz 14241C00 000C0001 F62 J0]
PU Version:D0.06.03 [PI03.20 LO00.00.07]  ET:D00000040304031C2821000000000000  KYMC-1111
PCL Program Version:05.10 [ 04.30 X04.04 P00.48 F00.46 ]  IM Version:00.02
PS Program version:3017, PSE14.01.00
Scanner Version:01.24  Country Code:International  MPS:OFF
Duplex:Installed  Tray 1:A4      A
Total Memory Size:256 MB
Flash Memory:8 MB [F62]  SD Memory Card:3.83 GB [F62]                 Language Format:1.06  Language Panel Format:1.10
OEL  DPR:1.5 64    MC:CP                                              Language Version:1.10
Network version:00.45  Web Remote:00.28                               Language:Japanese
ENGINE:10167 K:4188 C:5776 T:9:6:6:37 I:2,B:0,F:0
CM version 1:00.00.01 2:00.00.01 3:00.00.01 4:00.00.01 5:00.00.01
```

```
Reports
  Configuration
  System
    File List
    Demo Page
      01 : DEMO1
    Error Log
    MFP Usage
    Network Information
  Fax
    Speed Dial List
    Group List
    Fax Tx/Rx Log
    Fcode Box List
  E-mail/Internet Fax
    Journal Report
    Address Book
  Print
    PCL Font List
    PSE Font List
    PPR Font List
    FX Font List
    Color Tuning Pattern
    Color Profile List

Paper Setup
  Tray 1
    Paper Size:A4
    Media Type:Plain
    Media Weight:Medium
  MP Tray
    Paper Size:A4
    Media Type:Plain
    Media Weight:Medium
  Select Tray
    Fax
      Tray 1:---
      MP Tray:OFF
    Copy
      Tray 1:---
      MP Tray:OFF

Address Book
  E-mail Address
  E-mail Group

Phone Book
  Speed Dial
  Group No.

Profile

Network Scan Destination

Store Document Settings

View Information
  System Information
    Serial No.:ALPHA00000
    Asset No.
    Lot No.
```

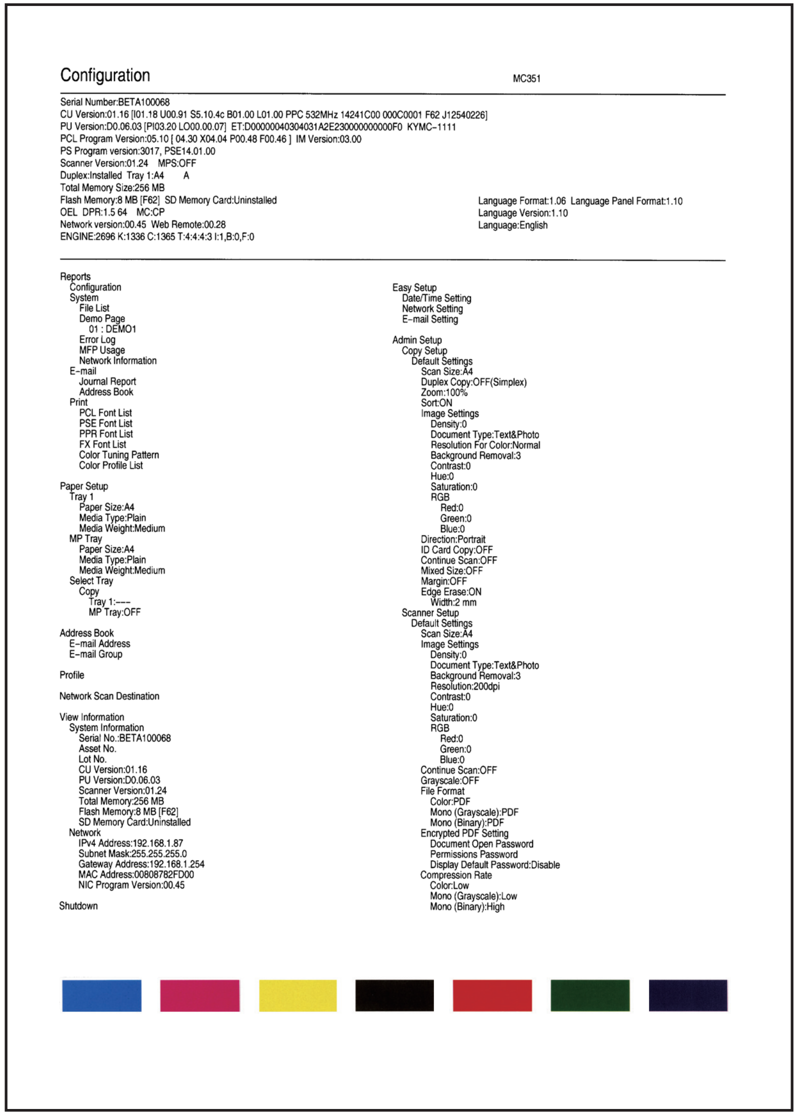
```
    CU Version:01.16
    PU Version:D0.06.03
    Scanner Version:01.24
    Total Memory:256 MB
    Flash Memory:8 MB [F62]
    SD Memory Card:3.83 GB [F62]
  Network
    IPv4 Address:192.168.100.100
    Subnet Mask:255.255.255.0
    Gateway Address:0.0.0.0
    MAC Address:00808782CD59
    NIC Program Version:00.45

Shutdown

Easy Setup
  Date/Time Setting
  Fax Setting
  Network Setting
  E-mail Setting

Admin Setup
  Copy Setup
    Default Settings
      Scan Size:A4
      Duplex Copy:OFF(Simplex)
      Zoom:100%
      Sort:ON
      Image Settings
        Density:0
        Document Type:Text&Photo
        Resolution For Color:Normal
        Background Removal:3
        Contrast:0
        Hue:0
        Saturation:0
        RGB
          Red:0
          Green:0
          Blue:0
      Direction:Portrait
      ID Card Copy:OFF
      Continue Scan:OFF
      Mixed Size:OFF
      Margin:OFF
      Edge Erase:ON
        Width:2 mm
  Fax Setup
    Default Settings
      Resolution:Normal
      Density:0
      Scan Size:A4
      Continue Scan:OFF
      TTI:ON
      Transmit Confirmation Report:OFF
      Memory Tx:ON
    Fcode Box
    Security Function
      ID Check Tx:OFF
      Broadcast Destination:ON
      Confirm Dial:OFF
```

(Sample) MC361



```
Configuration                                                MC361
--------------------------------------------------------------------------------
Serial Number:BETA100091
CU Version:01.16 [I01.18 U00.91 S5.10.4c B01.00 L00.70 PPC 532MHz 14241C00 000C0001 F62 J0]
PU Version:00.06.03 [PI03.20 LO00.00.07]  ET:00000004030405192D1F000000000008  KYMC-1011
PCL Program Version:05.10 [ 04.30 X04.04 P00.48 F00.46 ]  IM Version:03.00
PS Program version:3017, PSE14.01.00
Scanner Version:01.24  Country Code:International  MPS:OFF
Duplex:Installed  Tray 1:A4      A
Total Memory Size:256 MB
Flash Memory:8 MB [F62]  SD Memory Card:Uninstalled      Language Format:1.06  Language Panel Format:1.10
OEL  DPR:1.5 64    MC:CP                                 Language Version:1.10
Network version:00.45  Web Remote:00.28                  Language:Japanese
ENGINE:986 K:581 C:344 T:1:1:0:1 I:0,B:0,F:0
--------------------------------------------------------------------------------
Reports
  Configuration
  System
    File List
    Demo Page
      01 : DEMO1
    Error Log
    MFP Usage
    Network Information
  Fax
    Speed Dial List
    Group List
    Fax Tx/Rx Log
    Fcode Box List
  E-mail/Internet Fax
    Journal Report
    Address Book
  Print
    PCL Font List
    PSE Font List
    PPR Font List
    FX Font List
    Color Tuning Pattern
    Color Profile List

Paper Setup
  Tray 1
    Paper Size:A4
    Media Type:Plain
    Media Weight:Medium
  MP Tray
    Paper Size:A4
    Media Type:Plain
    Media Weight:Medium
  Select Tray
    Fax
      Tray 1:---
      MP Tray:OFF
    Copy
      Tray 1:---
      MP Tray:OFF

Address Book
  E-mail Address
  E-mail Group

Phone Book
  Speed Dial
  Group No.

Profile

Network Scan Destination

Store Document Settings

View Information
  System Information
    Serial No.:BETA100091
    Asset No.
    Lot No.
    CU Version:01.16
    PU Version:00.06.03
    Scanner Version:01.24
    Total Memory:256 MB
    Flash Memory:8 MB [F62]
    SD Memory Card:Uninstalled
  Network
    IPv4 Address:192.168.100.111
    Subnet Mask:255.255.255.0
    Gateway Address:192.168.100.254
    MAC Address:008087821DCD
    NIC Program Version:00.45

Shutdown

Easy Setup
  Date/Time Setting
  Fax Setting
  Network Setting
  E-mail Setting

Admin Setup
  Copy Setup
    Default Settings
      Scan Size:A4
      Duplex Copy:OFF(Simplex)
      Zoom:100%
      Sort:ON
      Image Settings
        Density:0
        Document Type:Text&Photo
        Resolution For Color:Normal
        Background Removal:3
        Contrast:0
        Hue:0
        Saturation:0
        RGB
          Red:0
          Green:0
          Blue:0
      Direction:Portrait
      ID Card Copy:OFF
      Continue Scan:OFF
      Mixed Size:OFF
      Margin:OFF
      Edge Erase:ON
        Width:2 mm
  Fax Setup
    Default Settings
      Resolution:Normal
      Density:0
      Scan Size:A4
      Continue Scan:OFF
      TTI:ON
      Transmit Confirmation Report:OFF
      Memory Tx:ON
    Fcode Box
    Security Function
      ID Check Tx:OFF
      Broadcast Destination:ON
      Confirm Dial:ON
```

(Sample) MC351



```
Configuration                                                MC351
--------------------------------------------------------------------------------
Serial Number:BETA100068
CU Version:01.16 [I01.18 U00.91 S5.10.4c B01.00 L01.00 PPC 532MHz 14241C00 000C0001 F62 J12540226]
PU Version:D0.06.03 [PI03.20 LO00.00.07]  ET:D00000040304031A2E230000000000F0  KYMC-1111
PCL Program Version:05.10 [ 04.30 X04.04 P00.48 F00.46 ]  IM Version:03.00
PS Program version:3017, PSE14.01.00
Scanner Version:01.24    MPS:OFF
Duplex:Installed  Tray 1:A4      A
Total Memory Size:256 MB
Flash Memory:8 MB [F62]  SD Memory Card:Uninstalled      Language Format:1.06  Language Panel Format:1.10
OEL  DPR:1.5 64    MC:CP                                 Language Version:1.10
Network version:00.45  Web Remote:00.28                  Language:English
ENGINE:2696 K:1336 C:1365 T:4:4:4:3 I:1,B:0,F:0
--------------------------------------------------------------------------------
Reports
  Configuration
  System
    File List
    Demo Page
      01 : DEMO1
    Error Log
    MFP Usage
    Network Information
  E-mail
    Journal Report
    Address Book
  Print
    PCL Font List
    PSE Font List
    PPR Font List
    FX Font List
    Color Tuning Pattern
    Color Profile List

Paper Setup
  Tray 1
    Paper Size:A4
    Media Type:Plain
    Media Weight:Medium
  MP Tray
    Paper Size:A4
    Media Type:Plain
    Media Weight:Medium
  Select Tray
    Copy
      Tray 1:---
      MP Tray:OFF

Address Book
  E-mail Address
  E-mail Group

Profile

Network Scan Destination

View Information
  System Information
    Serial No.:BETA100068
    Asset No.
    Lot No.
    CU Version:01.16
    PU Version:D0.06.03
    Scanner Version:01.24
    Total Memory:256 MB
    Flash Memory:8 MB [F62]
    SD Memory Card:Uninstalled
  Network
    IPv4 Address:192.168.1.87
    Subnet Mask:255.255.255.0
    Gateway Address:192.168.1.254
    MAC Address:00808782FD00
    NIC Program Version:00.45

Shutdown

Easy Setup
  Date/Time Setting
  Network Setting
  E-mail Setting

Admin Setup
  Copy Setup
    Default Settings
      Scan Size:A4
      Duplex Copy:OFF(Simplex)
      Zoom:100%
      Sort:ON
      Image Settings
        Density:0
        Document Type:Text&Photo
        Resolution For Color:Normal
        Background Removal:3
        Contrast:0
        Hue:0
        Saturation:0
        RGB
          Red:0
          Green:0
          Blue:0
      Direction:Portrait
      ID Card Copy:OFF
      Continue Scan:OFF
      Mixed Size:OFF
      Margin:OFF
      Edge Erase:ON
        Width:2 mm
  Scanner Setup
    Default Settings
      Scan Size:A4
      Image Settings
        Density:0
        Document Type:Text&Photo
        Background Removal:3
        Resolution:200dpi
        Contrast:0
        Hue:0
        Saturation:0
        RGB
          Red:0
          Green:0
          Blue:0
      Continue Scan:OFF
      Grayscale:OFF
      File Format
        Color:PDF
        Mono (Grayscale):PDF
        Mono (Binary):PDF
      Encrypted PDF Setting
        Document Open Password
        Permissions Password
        Display Default Password:Disable
      Compression Rate
        Color:Low
        Mono (Grayscale):Low
        Mono (Binary):High
```

3.7 Network Information Print

Make sure that the MFP operates normally.

(1) From the panel, press "Setting" button.

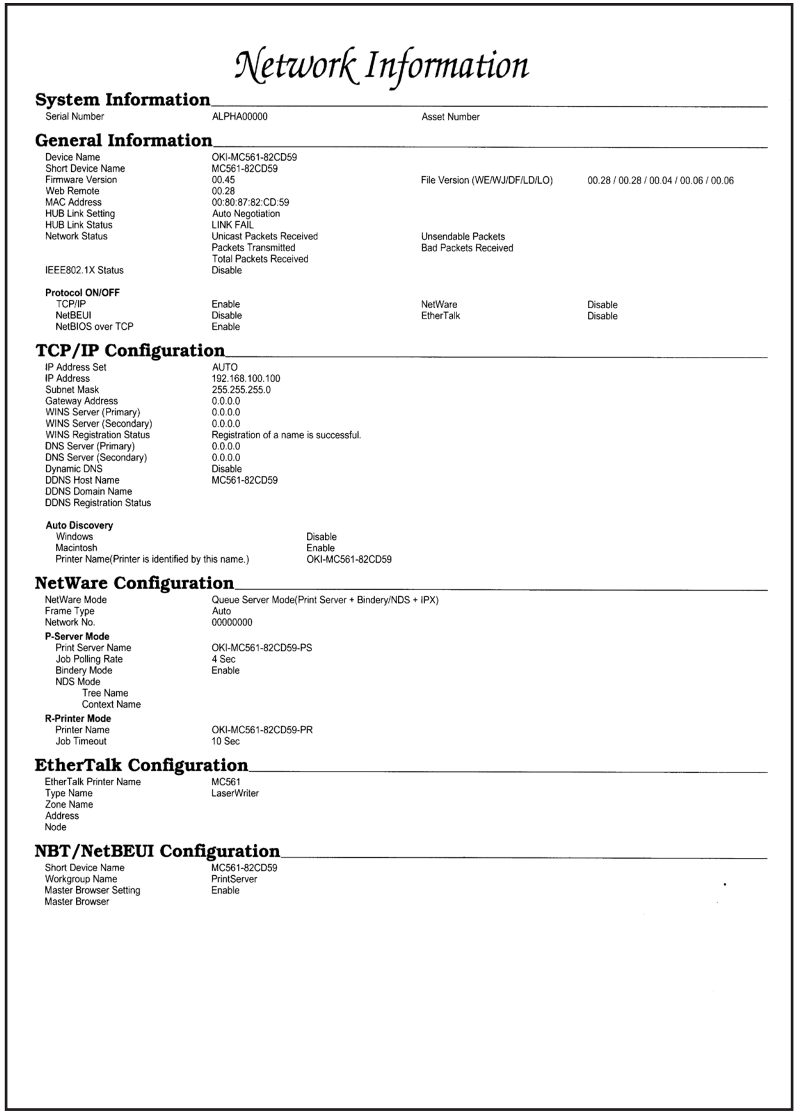
(2) Select "Reports".

(3) Select "System".

(4) Select "Network Information".

(Press the down button to go to "Network Information" and then press the right button.)

(Sample) In case of MC561



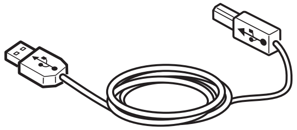
```
                              Network Information
System Information____________________________________________________________________
  Serial Number             ALPHA00000                   Asset Number

General Information___________________________________________________________________
  Device Name               OKI-MC561-82CD59
  Short Device Name         MC561-82CD59
  Firmware Version          00.45                        File Version (WE/WJ/DF/LD/LO)    00.28 / 00.28 / 00.04 / 00.06 / 00.06
  Web Remote                00.28
  MAC Address               00:80:87:82:CD:59
  HUB Link Setting          Auto Negotiation
  HUB Link Status           LINK FAIL
  Network Status            Unicast Packets Received     Unsendable Packets
                            Packets Transmitted          Bad Packets Received
                            Total Packets Received
  IEEE802.1X Status         Disable

  Protocol ON/OFF
    TCP/IP                  Enable                       NetWare                          Disable
    NetBEUI                 Disable                      EtherTalk                        Disable
    NetBIOS over TCP        Enable

TCP/IP Configuration__________________________________________________________________
  IP Address Set            AUTO
  IP Address                192.168.100.100
  Subnet Mask               255.255.255.0
  Gateway Address           0.0.0.0
  WINS Server (Primary)     0.0.0.0
  WINS Server (Secondary)   0.0.0.0
  WINS Registration Status  Registration of a name is successful.
  DNS Server (Primary)      0.0.0.0
  DNS Server (Secondary)    0.0.0.0
  Dynamic DNS               Disable
  DDNS Host Name            MC561-82CD59
  DDNS Domain Name
  DDNS Registration Status

  Auto Discovery
    Windows                                         Disable
    Macintosh                                       Enable
    Printer Name(Printer is identified by this name.)  OKI-MC561-82CD59

NetWare Configuration_________________________________________________________________
  NetWare Mode              Queue Server Mode(Print Server + Bindery/NDS + IPX)
  Frame Type                Auto
  Network No.               00000000
  P-Server Mode
    Print Server Name       OKI-MC561-82CD59-PS
    Job Polling Rate        4 Sec
    Bindery Mode            Enable
    NDS Mode
         Tree Name
         Context Name
  R-Printer Mode
    Printer Name            OKI-MC561-82CD59-PR
    Job Timeout             10 Sec

EtherTalk Configuration_______________________________________________________________
  EtherTalk Printer Name    MC561
  Type Name                 LaserWriter
  Zone Name
  Address
  Node

NBT/NetBEUI Configuration_____________________________________________________________
  Short Device Name         MC561-82CD59
  Workgroup Name            PrintServer
  Master Browser Setting    Enable
  Master Browser
```

3.8 Connection Procedures

<USB Connection>

Prepare a USB Cable.

Note!
- The cable of the MFP is not attached. Users should buy seperately.
- Obtain the cable of USB specification by yourself.
- Use the USB cable of Hi-Speed specification in case the connection is to be made using "HI-Speed" mode of USB2.0.

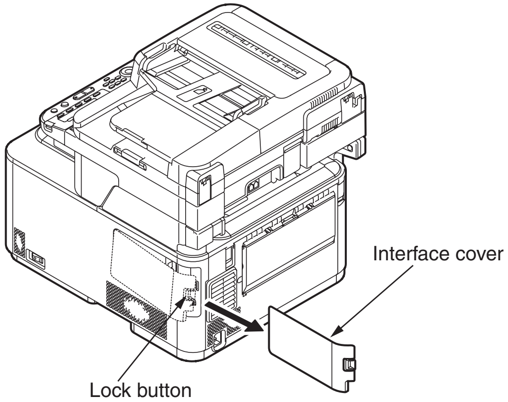


Switch off the power of the MFP and computer.

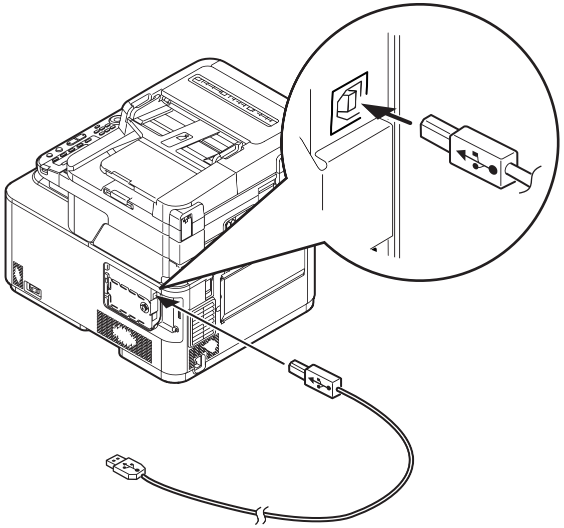
Memo Although the USB cable can be connected or removed with the switch of the computer and printer on, switch off the power of the MFP at this step in order to ensure installation of the MFP driver and USB driver later.

Connect the MFP with the computer.

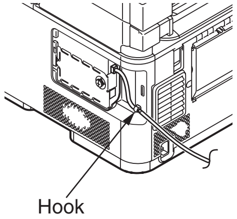
(1) Remove the interface cover on the right side of the machine while pressing the lock button.



(2) Plug one end of the USB cable into the USB connection on the back of the MFP.

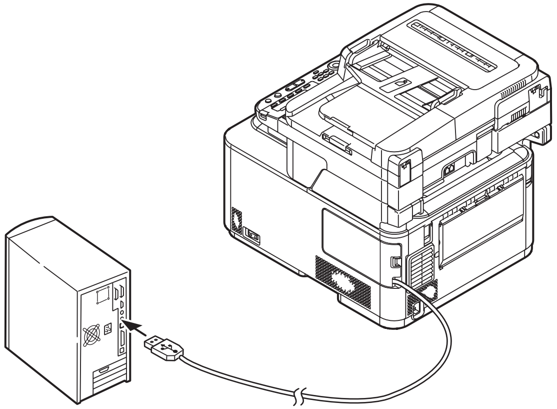


(3) Hook the USB cable on the hook of the MFP.



(4) Attach the interface cover.

(5) Plug the other end of the USB cable into the computer's USB interface connector.



Important
- For Windows OSs, do not plug the other end of the USB cable into the computer until prompted while driver installation.
- Do not plug the USB cable into the network connection.
  Doing so may cause a malfunction.

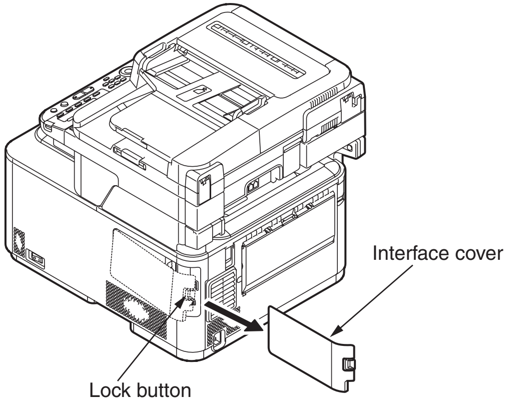
<LAN Cable Connection>

Prepare the LAN cable.

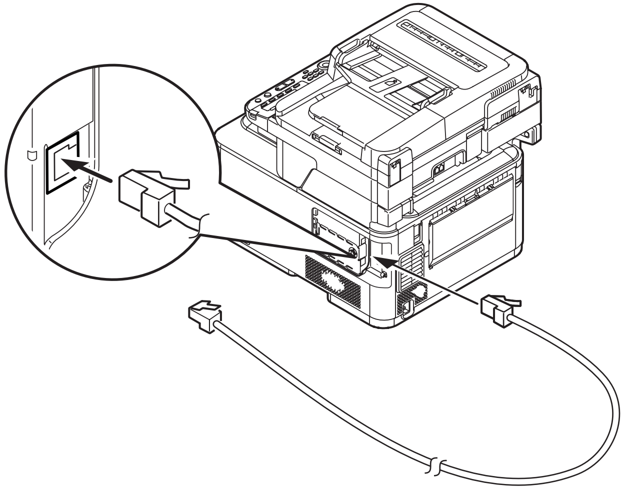
Switch off the power of the MFP and computer.

Connect the computer and MFP.

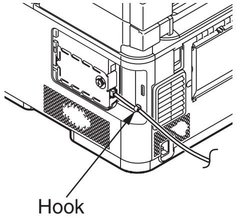
(1) Remove the side cover on the right side of the MFP while pressing the lock button.



(2) Plug one end of the Ethernet cable into the network connection on the back of the MFP.

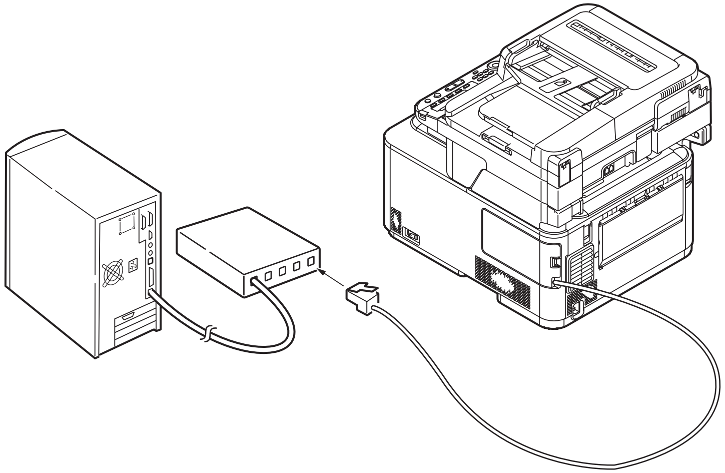


(3) Hook the Ethernet cable on the hook of the MFP.



(4) Attach the interface cover.

(5) Plug the other end of the Ethernet cable into the hub.

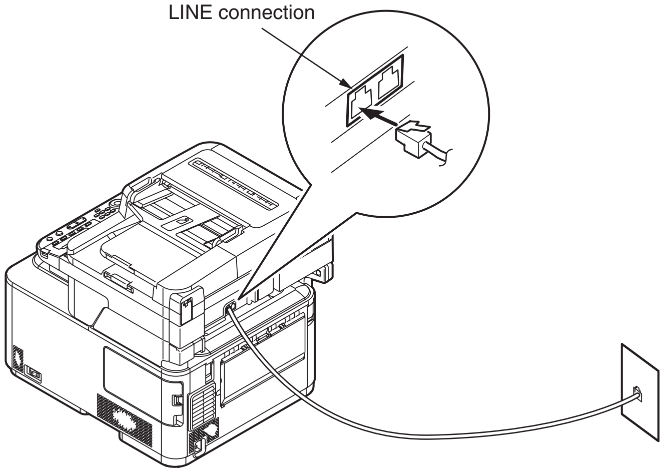


<TEL cable/ Line Cable Connection>

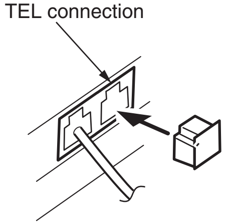
Prepare the TEL cable and Line cable.

Connecting for Fax only

(1) Plug one end of the supplied telephone cable into the LINE connection of the MFP and the other end into an active telephone jack.

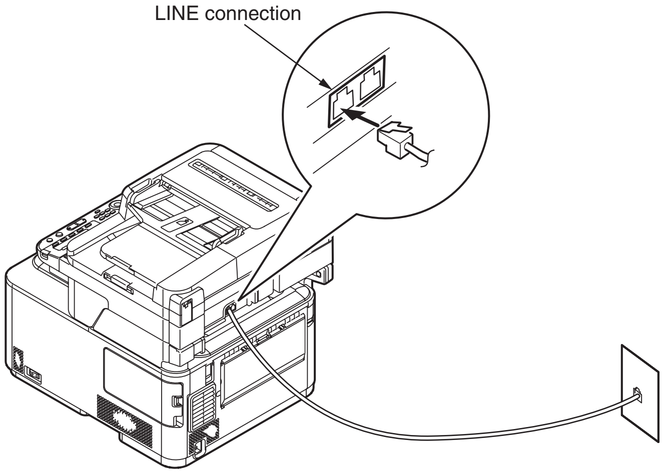

LINE connection

(2) Attach the supplied connector cover to the TEL connection of the MFP.

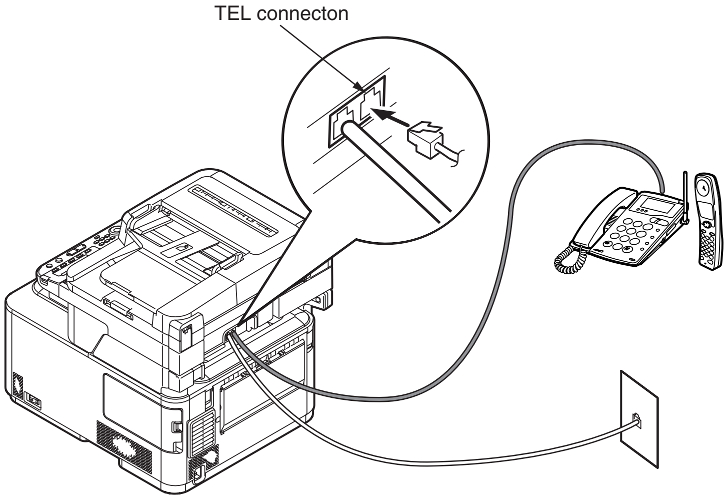

TEL connection

Connecting for Fax and Telephone

(1) Plug one end of the supplied telephone cable into the LINE connection of the MFP and the other end into an active telephone jack.


LINE connection

(2) Plug the telephone’s cable into the TEL connection of the MFP.


TEL connecton

3.9 Checking of User Paper

Load the media used by the user in the printer, make media weight/media type setting, print out MenuMap/Demo Page, and check printouts to make sure that no toner flakes off.

Type	Weight or thickness	Settings on the operator panel		Printer driver [Media weight] settings*2
		Media weight (paper thickness)	Media weight (paper thickness) Media type (paper type)*1	
Plain paper*3	55～64kg (64～74g/m^2)	LIGHT	PLAIN	Light
	65～70kg (75～82g/m^2)	MEDIUMLIGHT		Medium Light
	71～89kg (83～104g/m^2)	MEDIUM		Medium
	90～103kg (105～120g/m^2)	HEAVY		Heavy
	104～151kg (121～176g/m^2)	ULTRAHEAVY1		Ultra heavy 1
	152～189kg (177～220g/m^2)	ULTRAHEAVY2		Ultra heavy 2
Postcard*4	—	—	—	—
Envelope*4	—	—	—	—
Label	0.1 to under 0.17 mm	HEAVY	LABELS	Label 1
	0.17 to 0.2 mm	ULTRAHEAVY1		Label 2

*1: The factory default for the media type is [PLAIN].

*2: Media weight and type can be set on the operator panel and in the printer driver. The settings in the printer driver take priority. Data is printed out in accordance with the settings on the operator panel when [Auto selection] is selected in [Feed tray] or when [Printer setting] is selected in [Media weight].

*3: The weight of paper supported for duplex print is 64 to 176g/m^2 (55 to 151 kg).

*4: It is not necessary to set media weight and type for postcards and envelopes.

Memo Print speed decelerates when [MEDIUM] through [ULTRAHEAVY2] of media weight or [LABELS] of media type is set.

4. REPLACEMENT OF PARTS

This chapter describes the procedures of the field replacement of parts, assemblies and units. The procedures are to detach them. Reverse the procedures to attach them.

The reference part numbers used in this manual (such as ① and ②) do not identical to the part numbers in the maintenance disassembly configuration diagram (44473001TL) and RSPL (44473001TR) for the manual.

4.1 Notes on replacement of parts 85
4.2 Part replacement procedure..87
4.3 Locations to lubricate 121

4.1 Notes on replacement of parts

(1) Prior to replacing a part, unplug the AC cord and the interface cable.

  (a) Be sure to use the following procedure to unplug the AC cord:

    ① Turn off the printer [the power switch to the off (O) position].

    ② Pull out the AC plug of the AC cord from the AC power source.

    ③ Unplug the AC cord and the interface cable.

⚠ Warning	Electric shock hazard	⚠

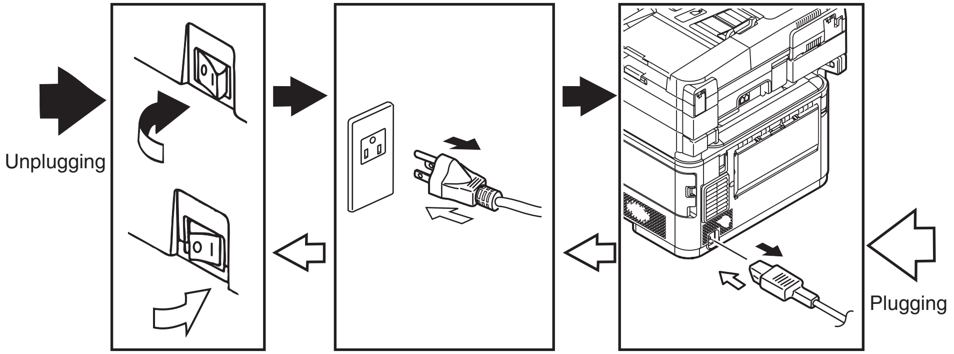
When replacing the low-voltage power supply, electric shock may occur. Wear insulated gloves, or be careful not to touch the conductors or terminals of the power supply directly. After the AC cord is unplugged, the capacitor may take about one minute to discharge completely or, due to PCB breakdown, could not discharge. Use caution about electric shock.

  (b) Always use the following procedure to reconnect the printer:

    ① Connect the AC cord and the interface cable to the printer.

    ② Insert the AC plug into the AC power source.

    ③ Turn on the printer [the power switch to the on (I) position].



(2) Do not disassemble the printer so long as it operates properly.

(3) Minimize disassembly. Do not detach parts not shown in the part replacement procedure.

(4) Use the replacement tools specified.

(5) Conduct disassembly in the order instructed, or part damage may occur.

(6) Removed small parts, such as screws or collars, should be tentatively installed in their original positions.

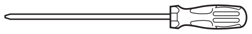
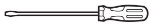
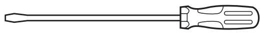
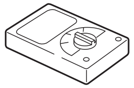
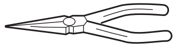
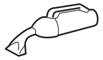
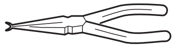
(7) Do not use static-prone gloves when handling integrated circuits (ICs), including microprocessors, and ROM and RAM chips, or circuit boards.

(8) Do not place printed-circuit boards (PCBs) directly on the printer or a floor.

Maintenance Tools:

Table 4-1-1 shows the tools necessary to replace printed-circuit boards and units:

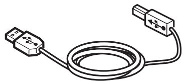
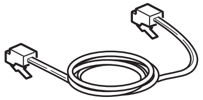
Table 4-1-1: Maintenance Tools

No.	Maintenance Tool		Quantity	Use	Remarks
1		Phillips screwdriver with magnetic tip, No. 2-200	1	3- to 5-mm screws	
2		Screwdriver No. 3-100	1		
3		Screwdriver No. 5-200	1		
4		Digital multimeter	1		
5		Pliers	1		
6		Handy vacuum cleaner (toner vacuum)	1		See note.
7		E-ring pliers	1	E-shaped ring removal	

Note! Use a toner vacuum. Using a general-purpose vacuum may cause fire.

Table 4-1-2 shows the tools necessary to use Maintenance Utility software.

Table 4-1-2: Maintenance Tools

No.	Maintenance Tool		Quantity	Use	Remarks
1		Notebook personal computer (with Maintenance Utility software installed)	1		See section 5.3 for Maintenance Utility.
2		USB cable	1		
3		Ethernet cable (crossover cable)	1		

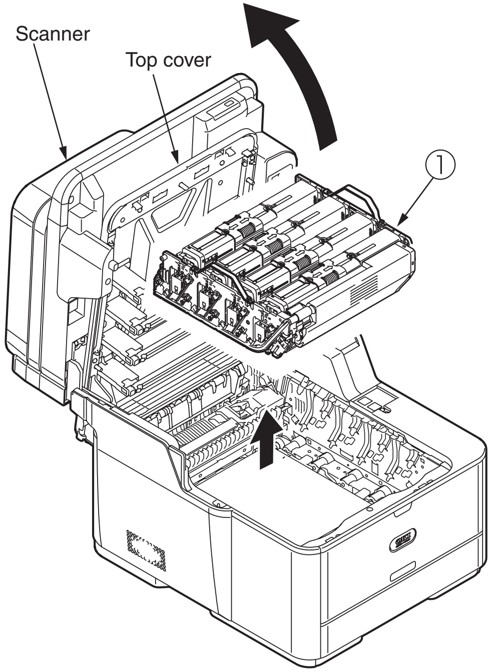
4.2 Part replacement procedure

This section describes the procedure for replacing the parts and assemblies shown in the disassembly diagrams below.

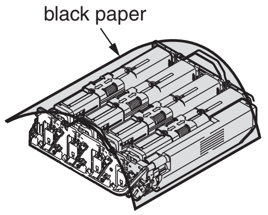
4.2.1 Belt unit

(1) Open the scanner and the top cover.

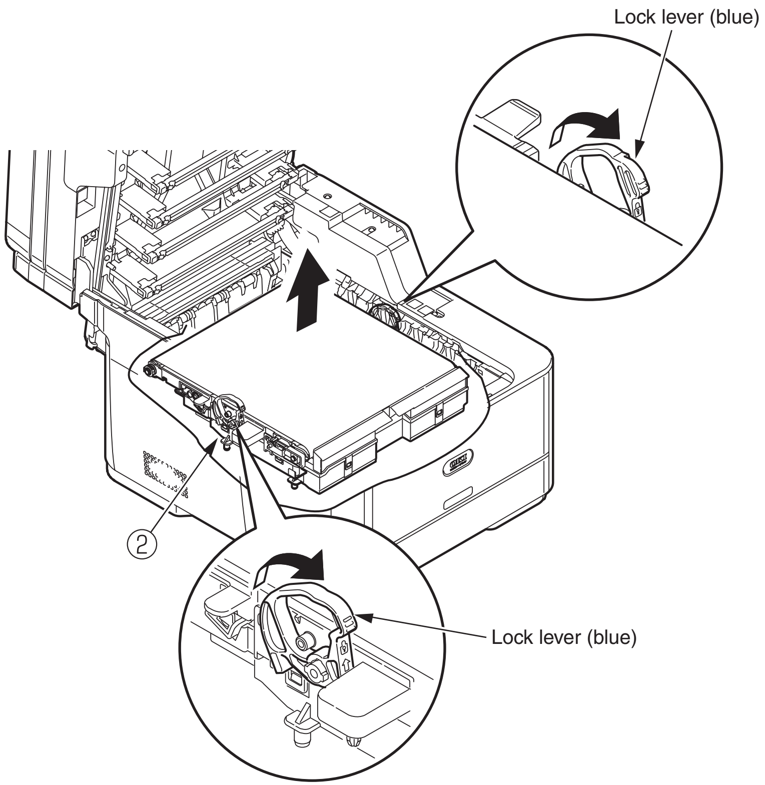
(2) Remove the image drum unit ① .


Scanner
Top cover
①

Note! Cover the removed image drum cartridges with a piece of black paper.


black paper

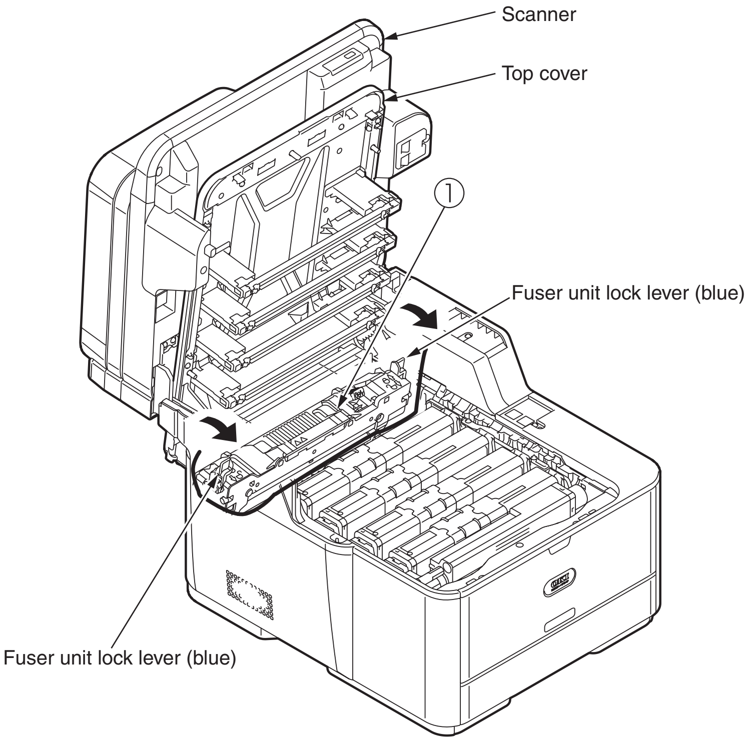
(3) Turn the (two blue) lock handles of the belt unit ② in the direction of the arrows 🔓 and, holding the unit by the (blue) handle, detach the unit.


Lock lever (blue)
②
Lock lever (blue)

4.2.2 Fuser unit

(1) Open the scanner and the top cover.

(2) Pull the (blue) fuser unit lock lever in the direction of the arrow and detach the fuser unit ① .

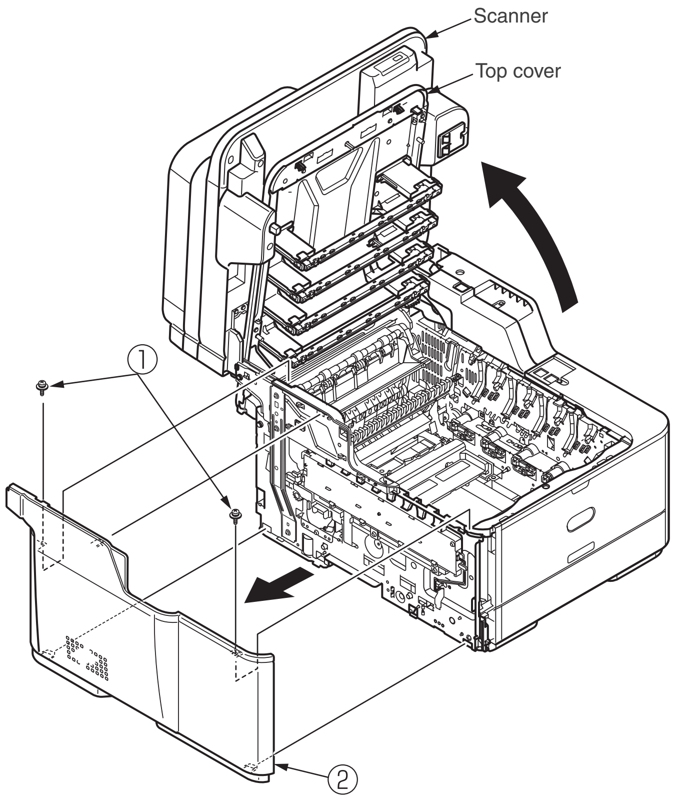

Scanner
Top cover
①
Fuser unit lock lever (blue)
Fuser unit lock lever (blue)

4.2.3 Left side cover

(1) Open the scanner and the top cover.

(2) Remove the two (silver-colored) screws ① .

(3) Unlatch and detach the left side cover ② .


Scanner
Top cover
①
②

4.2.4 Right side cover

(1) Open the scanner and the top cover.

(2) Remove the cassette assembly.

(3) Remove the interface cover ① .

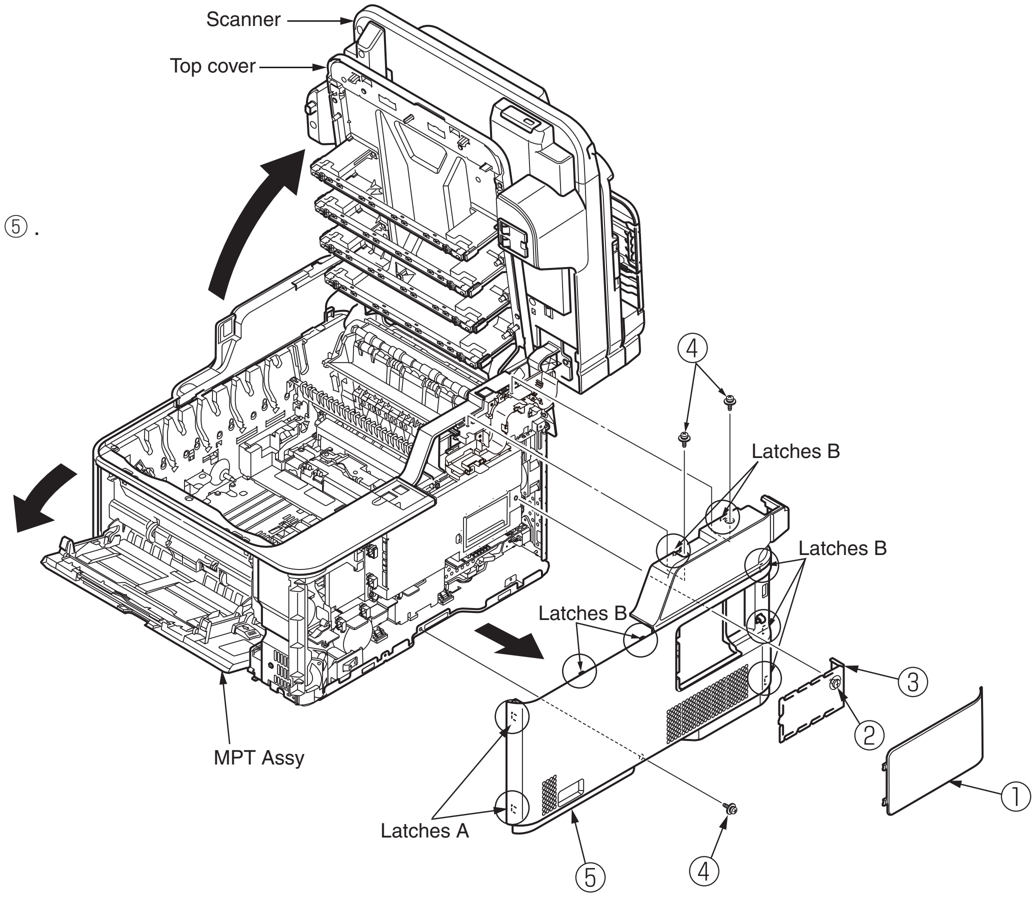
(4) Loosen the screw ② to remove the bracket ③ .

(5) Open the MPT Assy.

(6) Remove the three screws ④ .

(7) Unlatch two portions A and seven portions B to detach the right side cover ⑤ .

Note! Please pull out SD Memory card, when you exchange the right side cover ⑤ .
(MC561 only)


Scanner
Top cover
④
Latches B
Latches B
Latches B
③
②
①
MPT Assy
Latches A
⑤
④

4.2.5 CU/PU board(CLP) and low-voltage power supply

⚠ Warning | Electric shock hazard

When replacing the low-voltage power supply, electric shock may occur. Wear insulated gloves, or be careful not to touch the conductors or terminals of the power supply directly. After the AC cord is unplugged, the capacitor may take about one minute to discharge completely or, due to PCB breakdown, could not discharge. Use caution about electric shock.

(1) Remove the right side cover. (See 4.2.4)

(2) Remove the three screws (Silver-Colored) ① and one screw (black-colored) ② .

(3) Remove the five (silver-colored) screws ③ and unlatch and remove the plate shield assembly ④ .

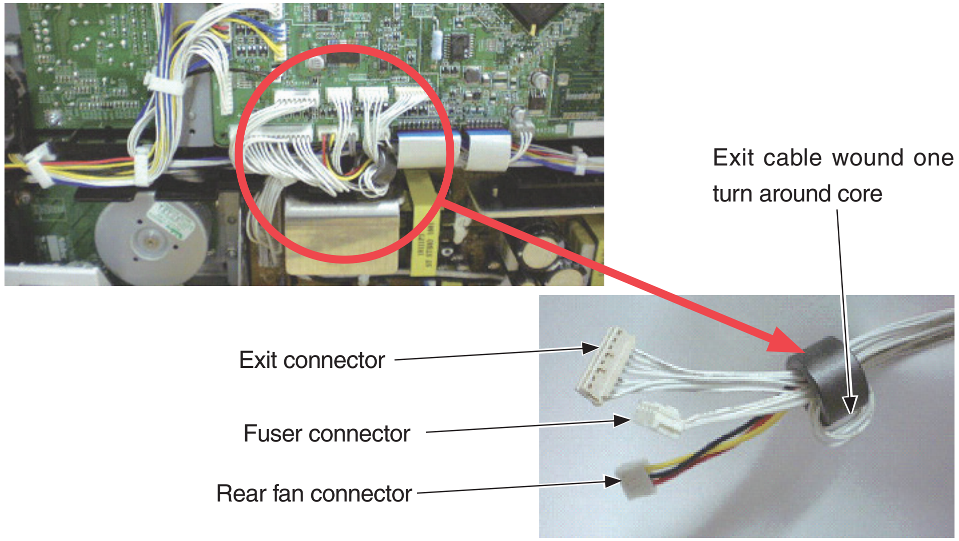
(4) Remove the one screw ⑤ (silver-colored L=8mm) and remove FG-cable ⑥ and FG-cable ⑦ .

(5) Remove all the CU/PU board(CLP) cables (⑧ etc.).

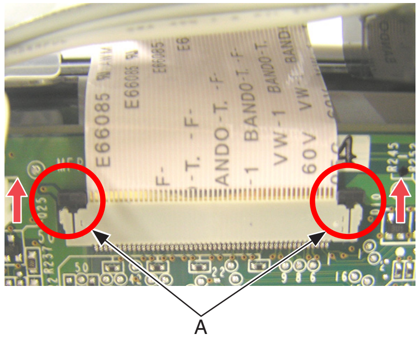
(6) Remove the three (silver-colored) screws ⑨ to detach the CU/PU board(CLP) ⑩ .

(7) Remove all the low-voltage power supply cables.

(8) Remove the two (silver-colored L=8mm) screws ⑪ , and detach the low-voltage power supply ⑫ , FG-cable ⑬ and FG-cable ⑭ .

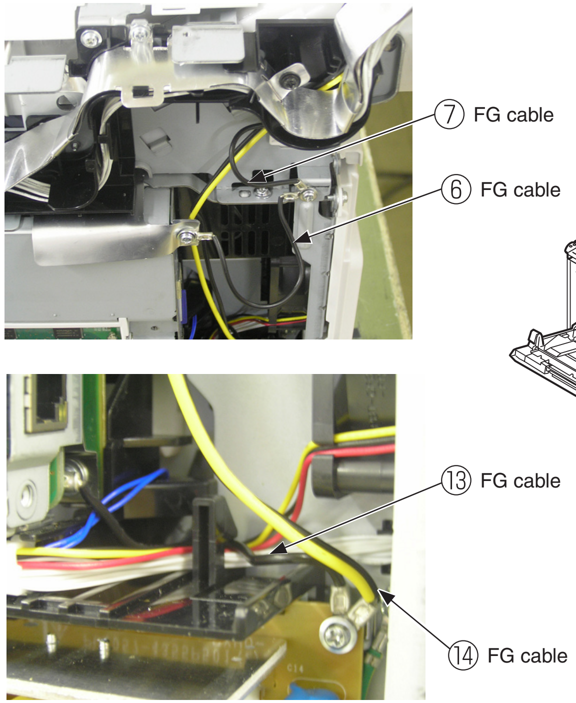


Note! When you remove a FFC cable, refer to the figure of the next page. Refer to the figure of the next page for the position of FG-cable.

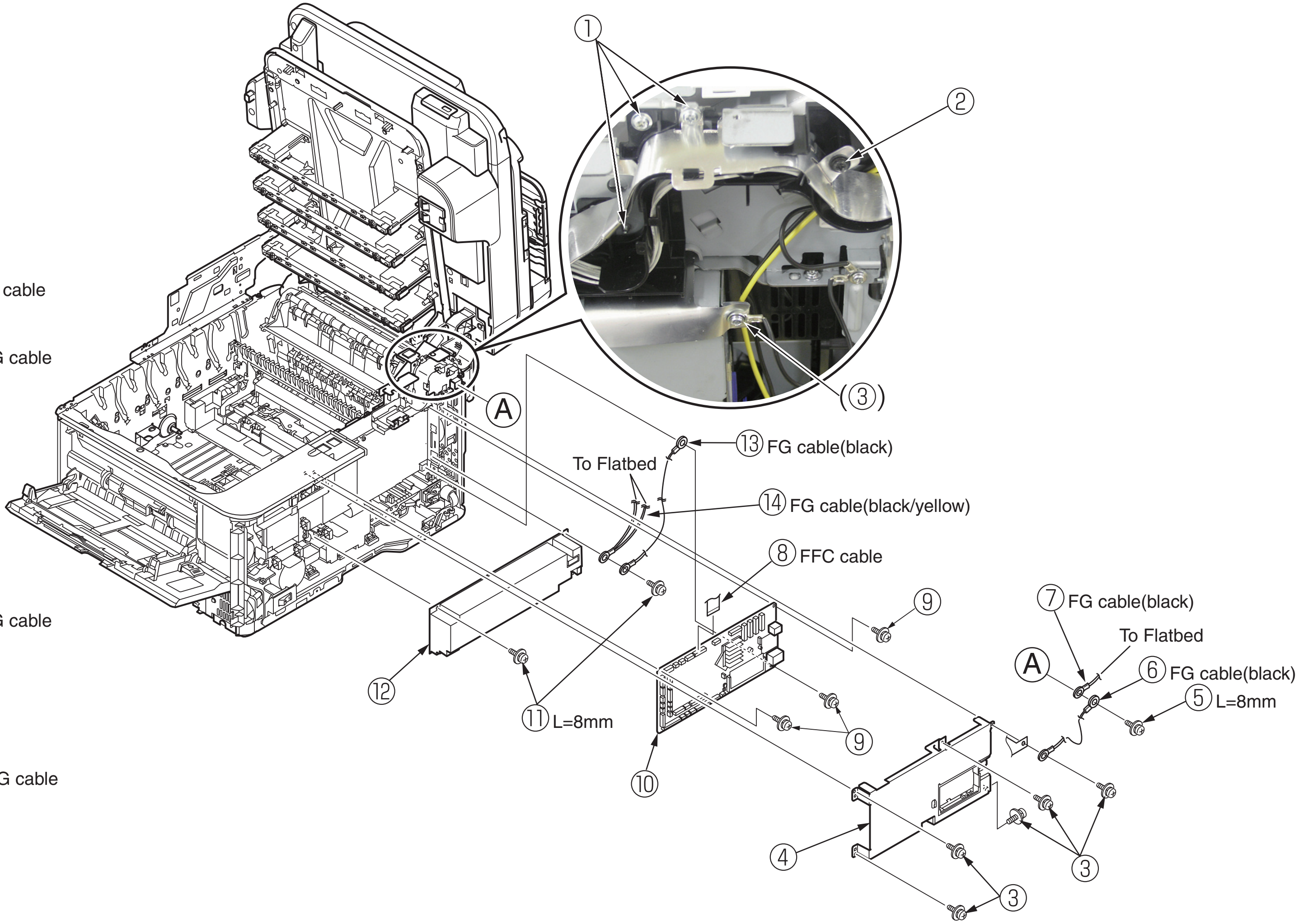


The A section is shifted in the direction of an arrow.

Method of removing FFC cable


⑦ FG cable
⑥ FG cable
⑬ FG cable
⑭ FG cable

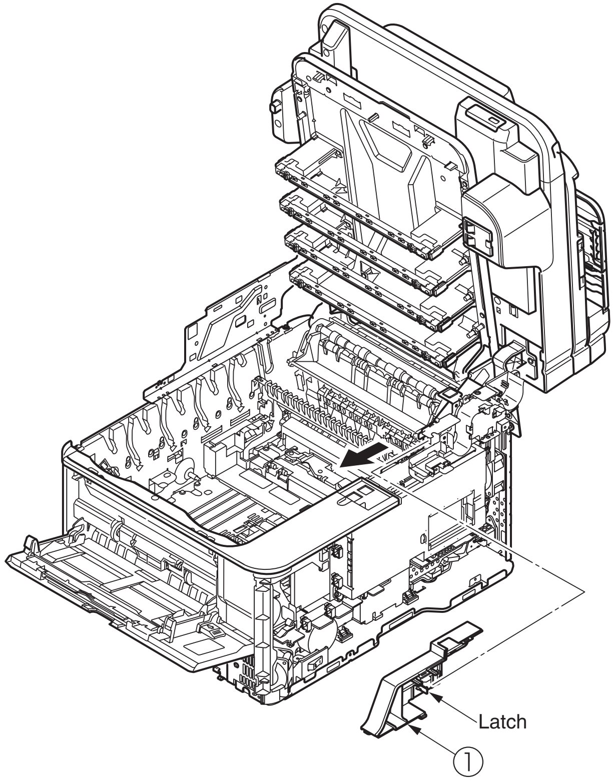
FG cable position


①
②
(③)
Ⓐ
⑬ FG cable(black)
To Flatbed
⑭ FG cable(black/yellow)
⑧ FFC cable
⑨
⑦ FG cable(black)
To Flatbed
Ⓐ
⑥ FG cable(black)
⑤ L=8mm
⑫
⑪ L=8mm
⑨
⑩
④
③
③

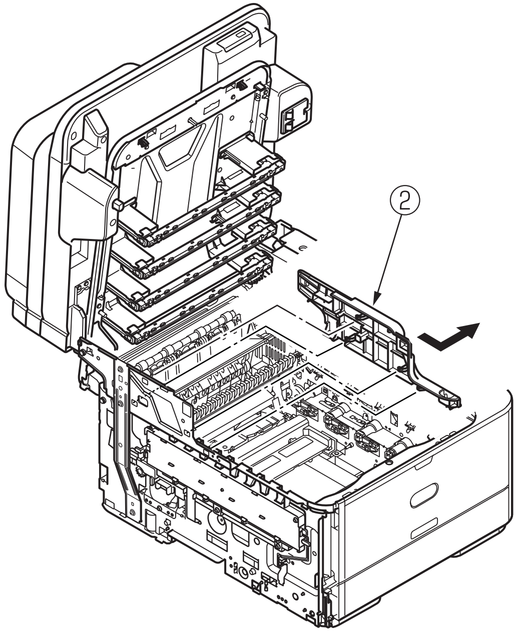
4.2.6 Front cover

(1) Remove the left side cover and right side cover. (See 4.2.3, 4.2.4)

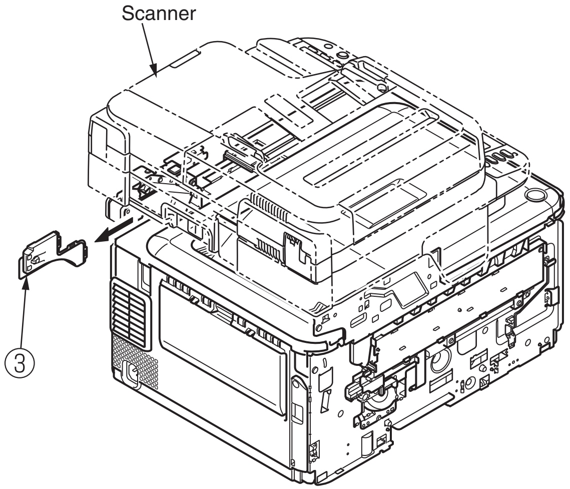
(2) Remove the latch, and remove the cover-Hinge-R ① in the direction of the arrow.



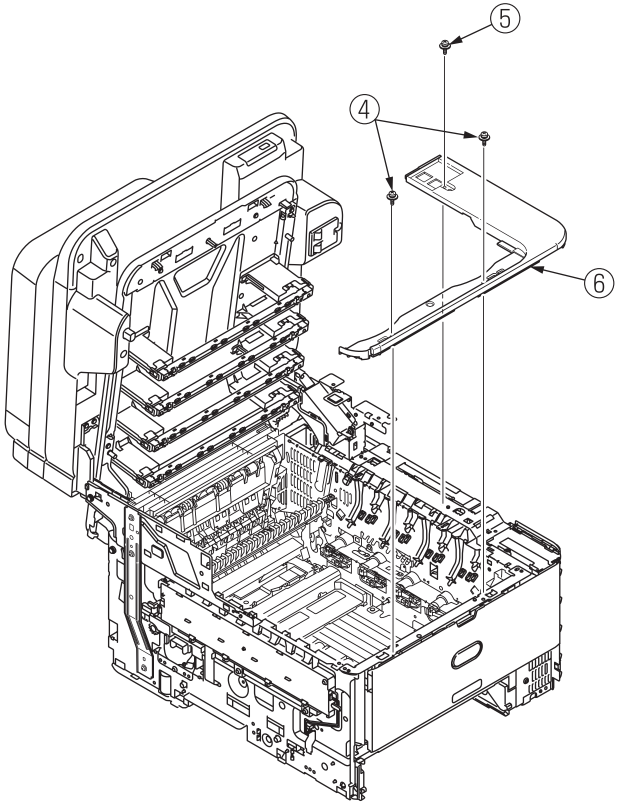
(3) Remove the cover-stay-L ② in the direction of the arrow.



(4) Remove the cover-hinge-RB ③ in tne direction of the arrow.



(5) Remove the two screws (black) ④ and one screw (silver-coloved) ⑤ to detach the front cover ⑥ .



4.2.7 Scanner unit

(1) Remove the left side cover, the right side cover, the CU/PU board(CLP) and the front cover. (See 4.2.3, 4.2.4, 4.2.5 (6) and 4.2.6.)

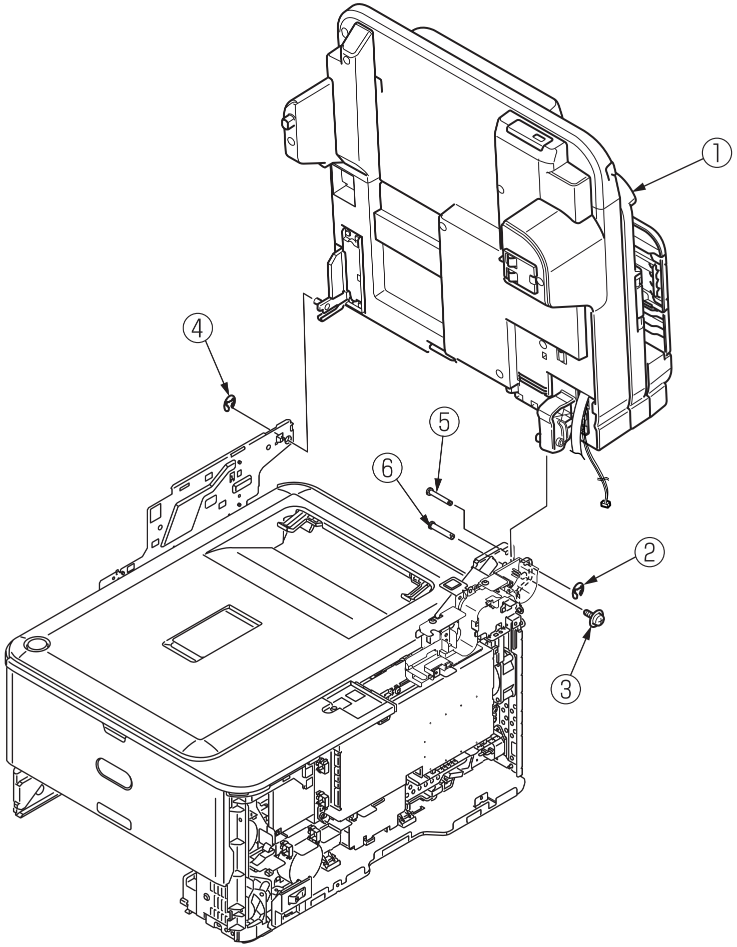
(2) Remove the cover-hinge-R, the cover-stay-L and Remove the cover-hinge-RB. (See 4.2.6 (2), (3), (4))

(3) Open the scanner ① and remove the E-shaped retainer ring ② and screw ③ .

(4) Remove the E-shaped retainer ring ④ .

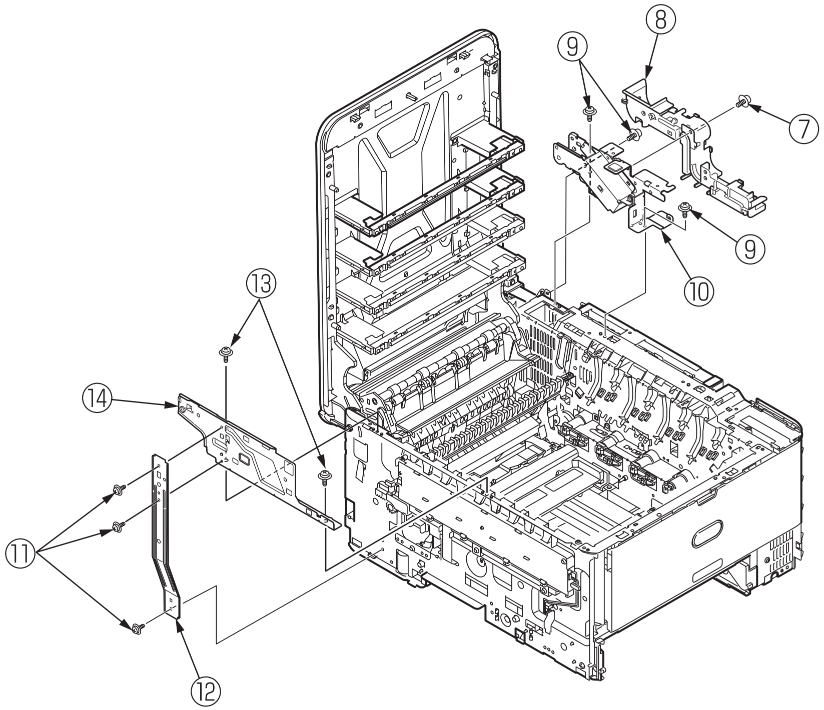
(5) Remove the shaft-stopper (hinge) ⑤ and remove the shaft-guide (hinge) ⑥ .

(6) Remove the scanner ① .



(7) Remove the screw ⑦ and remove the guide cable ⑧ . Remove the three screws ⑨ and remove the hinge Assy FB ⑩ .

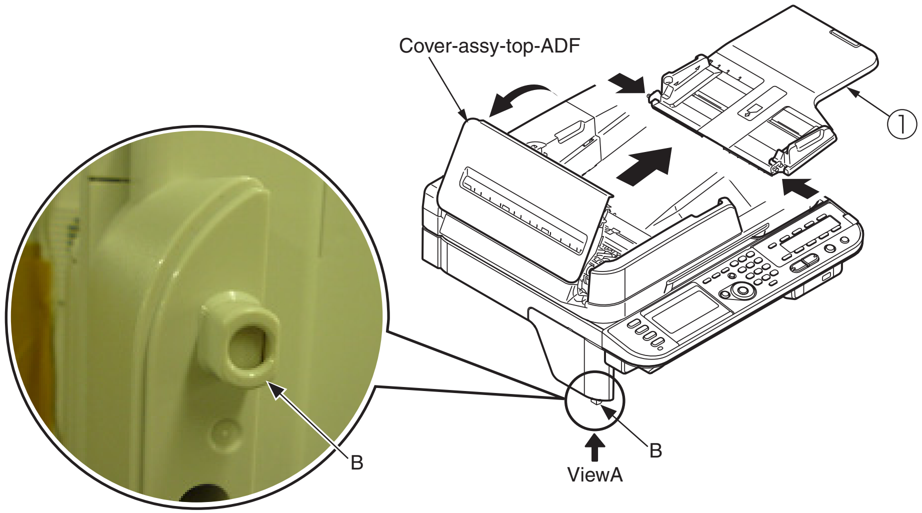
(8) Remove the three screws ⑪ and remove the plate support R ⑫ . Remove the two screws ⑬ and remove plate support stay L ⑭ .



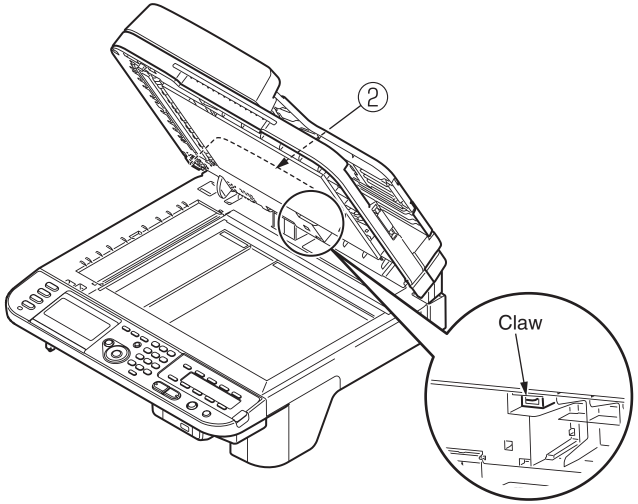
4.2.7.1 Tray-assy-document / Cover-ADF-R-assy

(1) Open the cover-assy-top-ADF .

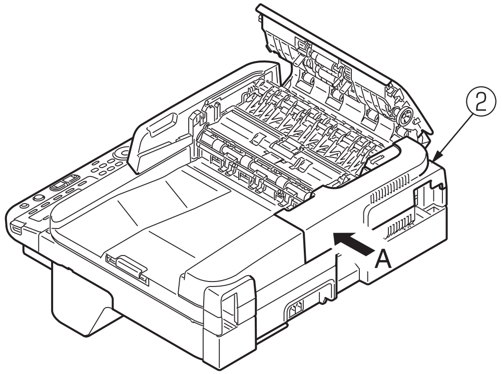
(2) Remove the tray-assy-document ① by pull it in the direction of the arrow.



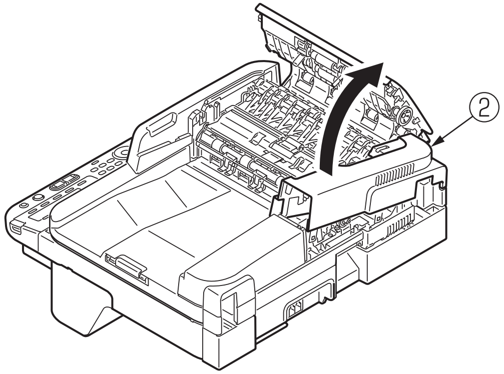
(3) Open the ADF-unit while pushing the portion B, and push the claw of cover-ADF-R-assy ② .



(4) Push the portion A. (Concurrent to push the (3))



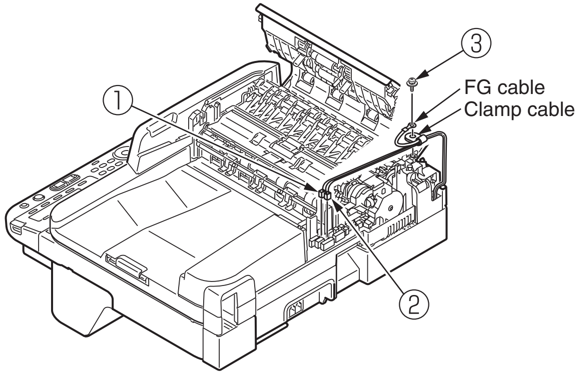
(5) Remove the cover-ADF-R-assy ② in the direction of the arrow.



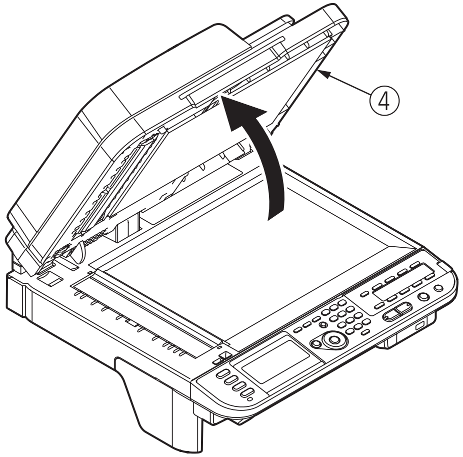
4.2.7.2 ADF-unit

(1) Remove the cover-ADF-R-assy. (See 4.2.7.1)

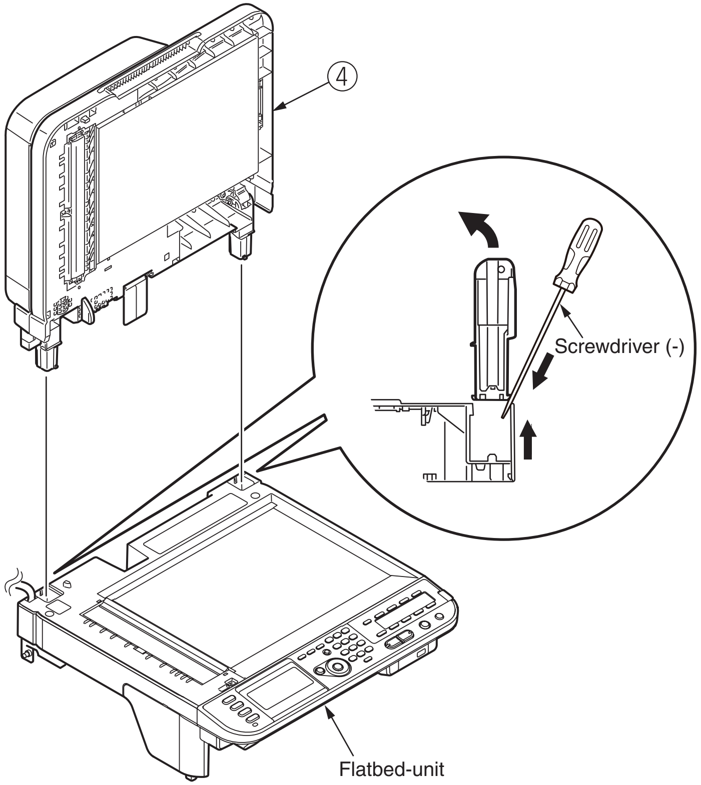
(2) Detach a connector ① and ② from the ADF board(MHD), and remove the screw ③ to remove the FG cable.


③
FG cable
Clamp cable
①
②

(3) Remove the clamp cable and pull the cables out of the hinge, and Open the ADF-unit ④ .



(4) Remove the ADF-unit ④ by insert the screwdriver to gap between ADF-unit ④ and flatbed-unit.

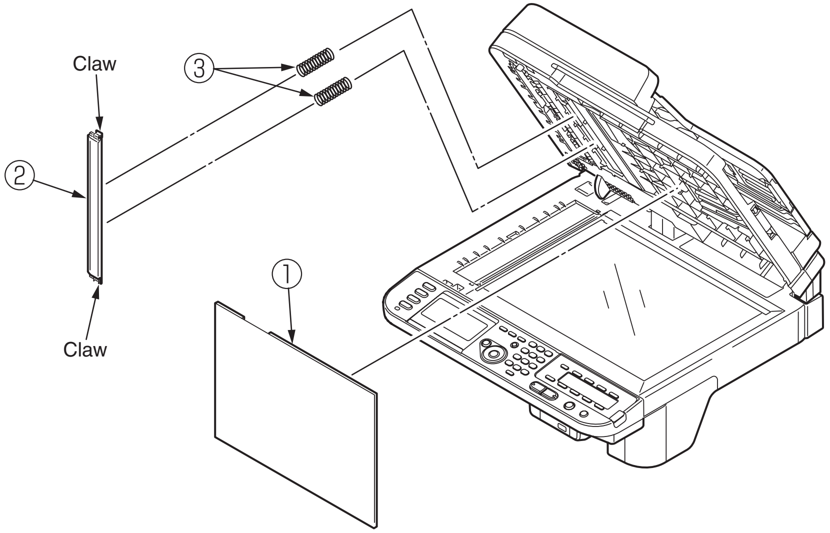

④
Screwdriver (-)
Flatbed-unit

4.2.7.3 Sheet-document / Paper-weight-assy / Spring-PW-ADF

(1) Open the ADF-unit.

(2) Remove the sheet-document ① .

(3) Remove two claws to remove the paper-weight-assy ② and two spring-PW-ADF ③.



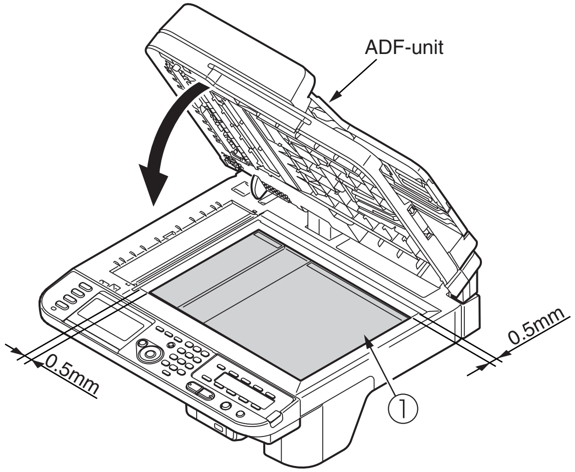
<Attention of affix the sheet-document>

(1) Degrease the affix area of ADF-unit.

(2) Remove the peeling-off sheet.

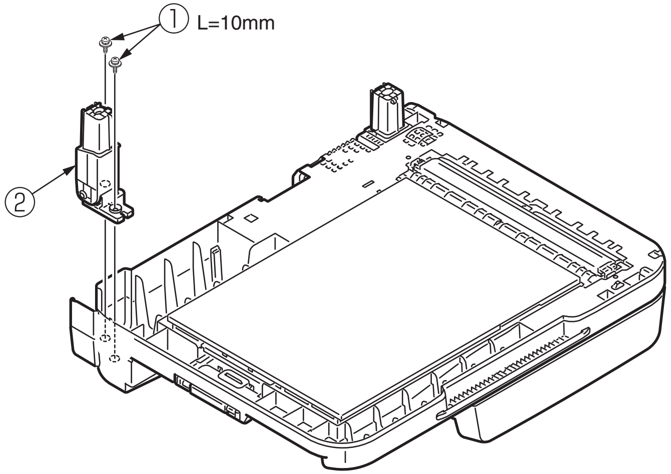
(3) Set the sheet-document ① (see the figure below).

(4) Close the ADF-unit.

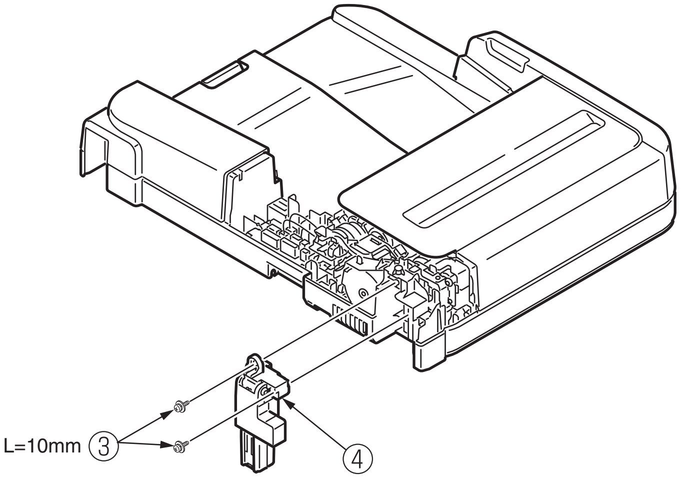


4.2.7.4 Hinge-assy-L / Hinge-assy-R

(1) Remove the two screws (L=10mm) ① and remove the hinge-Assy-R ② .

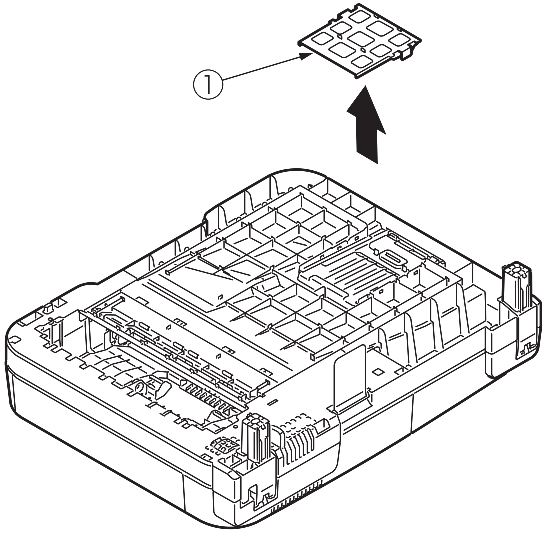


(2) Remove the two screws (L=10mm) ③ and remove the hinge-Assy-L ④ .

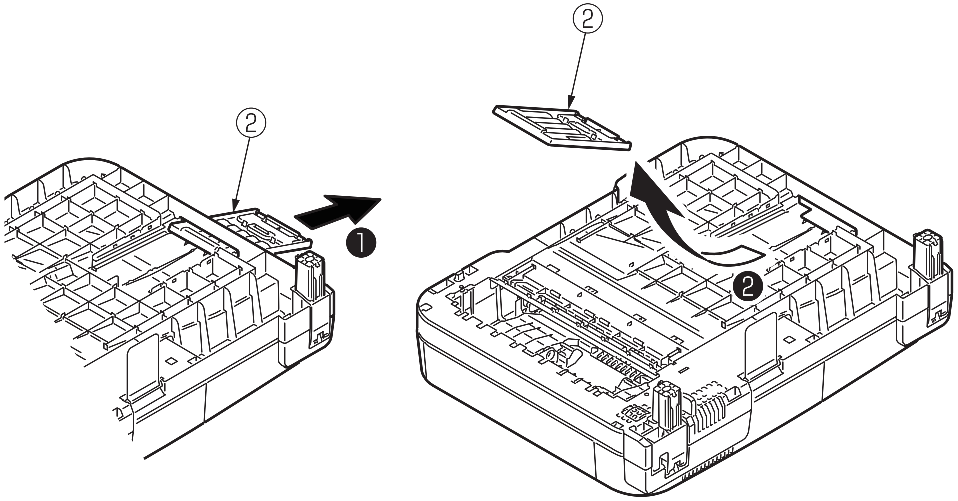


4.2.7.5 Cover-ADF-F / Guide-assy-exit-sub / ADF-assy / ADF board(MHD)

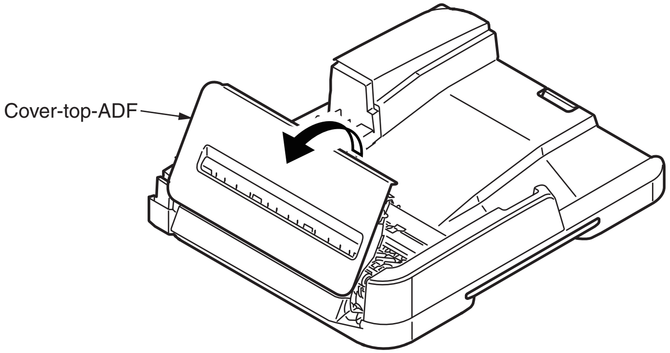
(1) Turn the ADF unit upside down and remove the support-sponge ① .



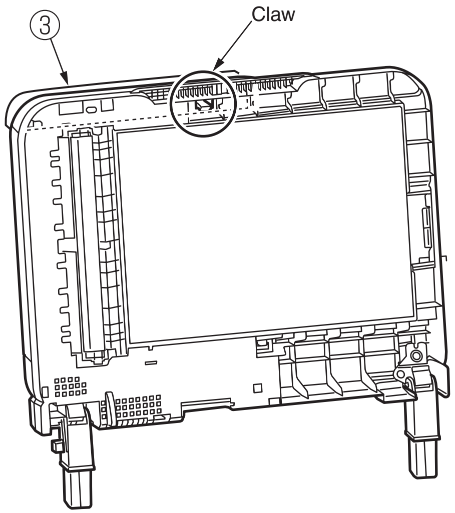
(2) Remove the guide-assy-exit-sub ② by pull it in the direction of the arrow.



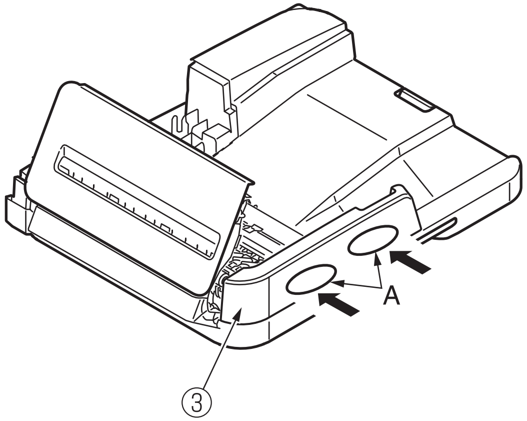
(3) Open the cover-top-ADF .



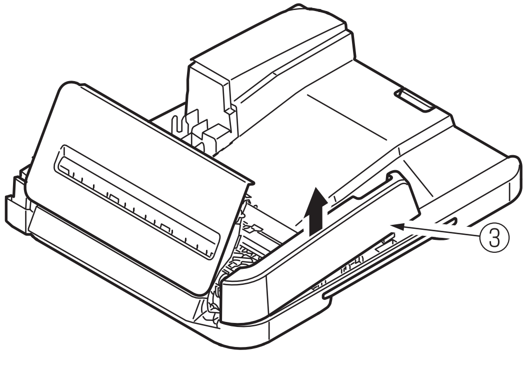
(4) Push the claw of cover-ADF-F ③ .



(5) Push the portion A (2 places). (Concurrent to push the (4))

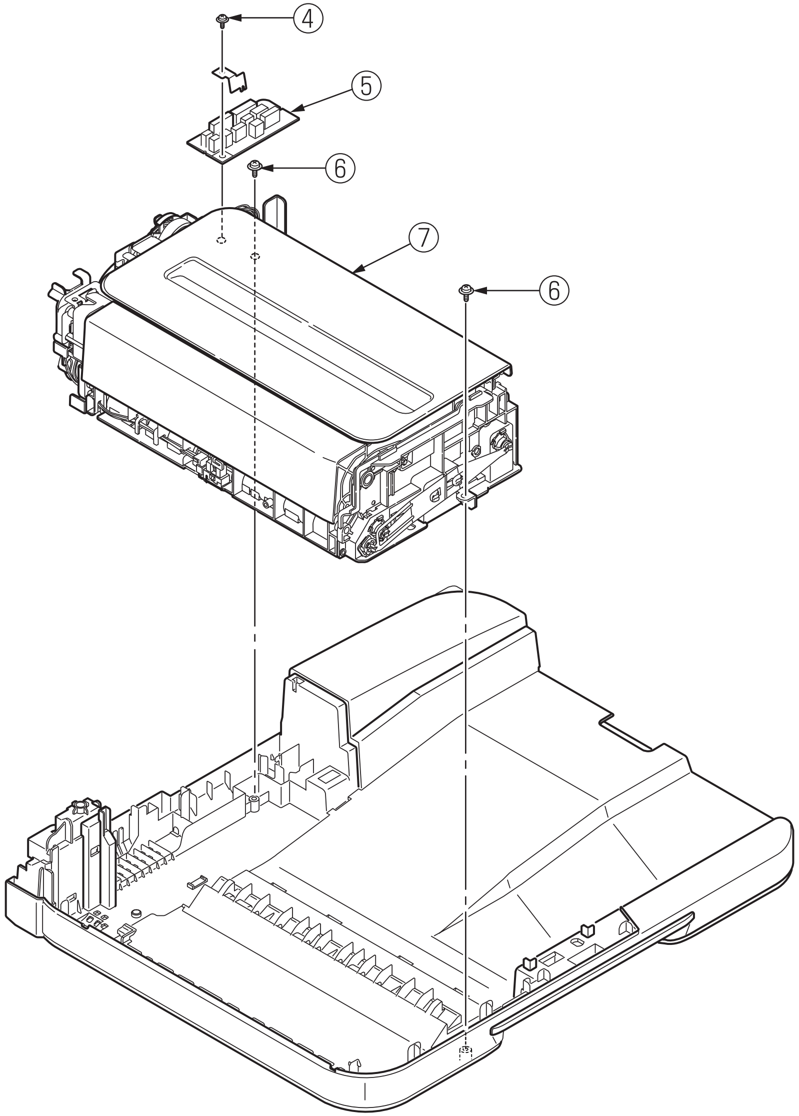


(6) Remove the cover-ADF-F ③ in the direction of the arrow.



(7) Remove the screw (silver) ④ and remove the ADF board(MHD) ⑤ .

(8) Remove the two screws (black) ⑥ and remove the ADF-assy ⑦ .



4.2.7.6 Cover-assy-top-ADF / Guide-assy / Roller / Motor / Clutch / Solenoid

(1) Remove the cover-assy-top-ADF ① .

(2) Remove the guide-assy-A ② .

(3) Remove the guide-B ③ .

(4) Remove the guide-cable ④ .

(5) Remove the guide-assy-C ⑤ .

(6) Remove the guide-assy-D ⑥ .

(7) Remove the two screws (silver) ⑦ and remove the motor-pulse-belt ⑧ .

(8) Remove the E-type retaining ring ⑨ and remove the clutch ⑩ .

(9) Remove the plate-FG-S ⑪ .

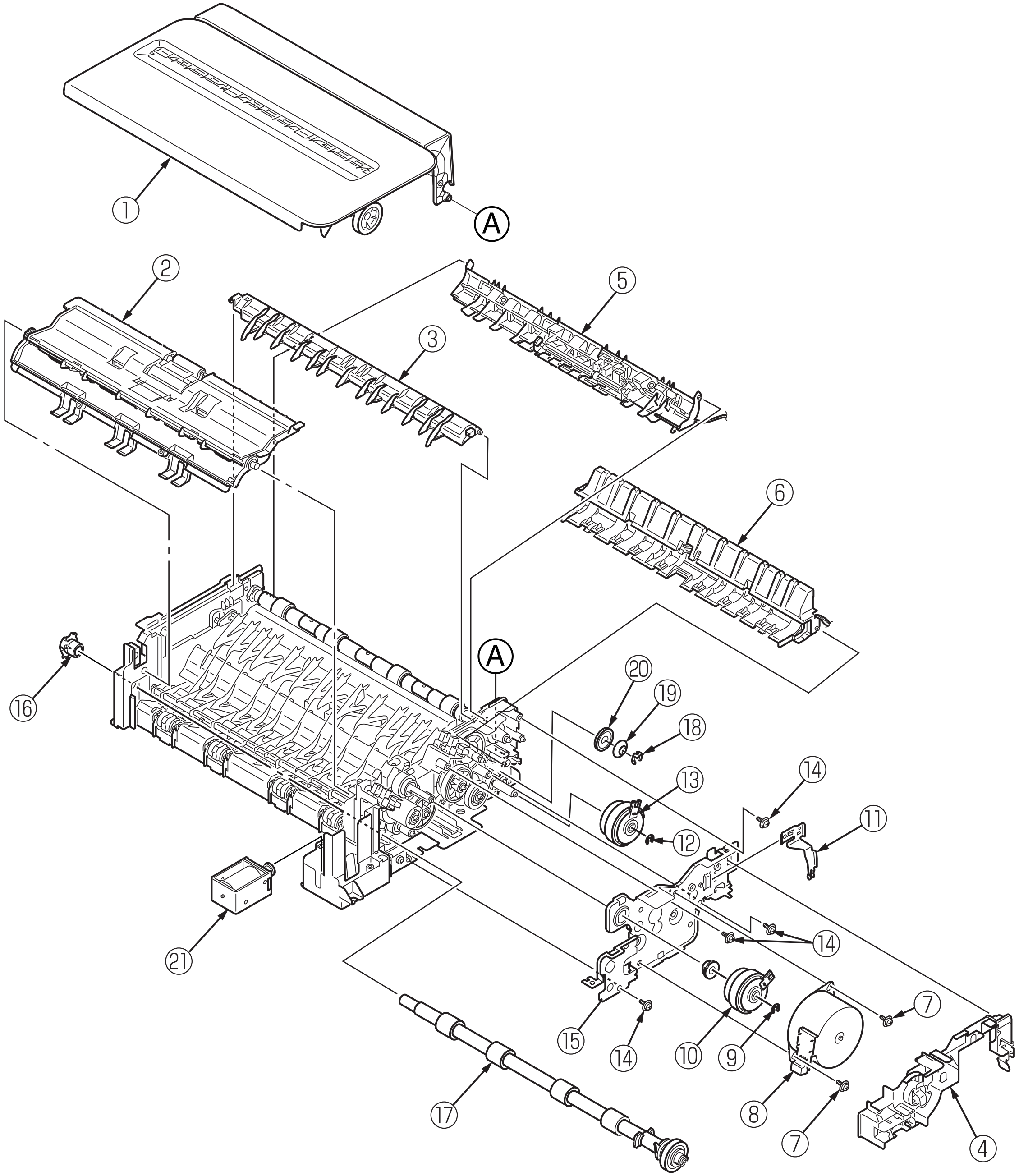
(10) Remove the E-type retaining ring ⑫ and remove the clutch ⑬ .

(11) Remove the four screws (black) ⑭ and remove the plate-motor-ADF ⑮ .

(12) Remove the bearing-shaft ⑯ and remove the roller-assy-eject-ADF ⑰ .

(13) Remove the retainer-4 ⑱ , spring ⑲ and washer-A ⑳ .

(14) Remove the solenoid ㉑ .

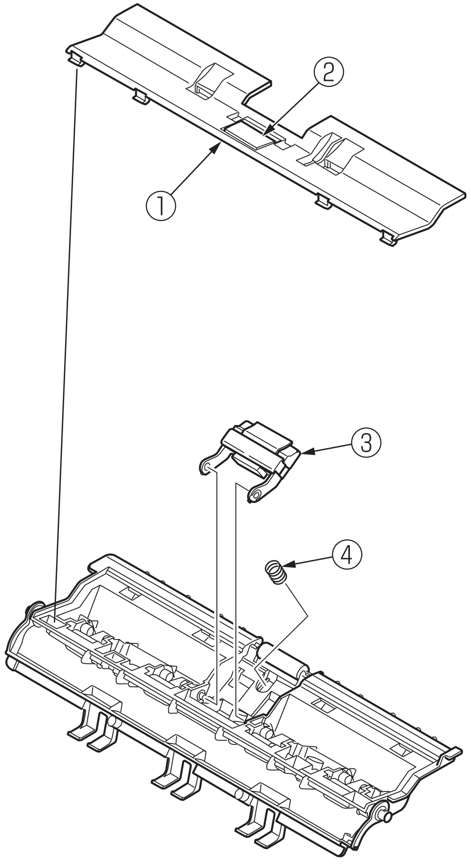


4.2.7.7 Guide-A-sub / Frame-assy-separator / Spring-separator / Rubber-friction

(1) Remove the guide-A-sub ① with rubber-friction ② .

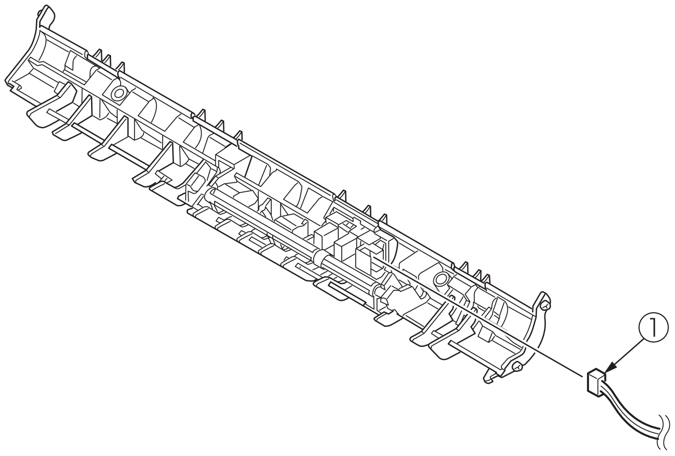
(2) Remove the frame-assy separator ③ and spring-separator ④ .

Note! • If change the ② … Remove the ② , then degrease the ① and affix the ② .
• If change the ① … Remove the ① and ② together.



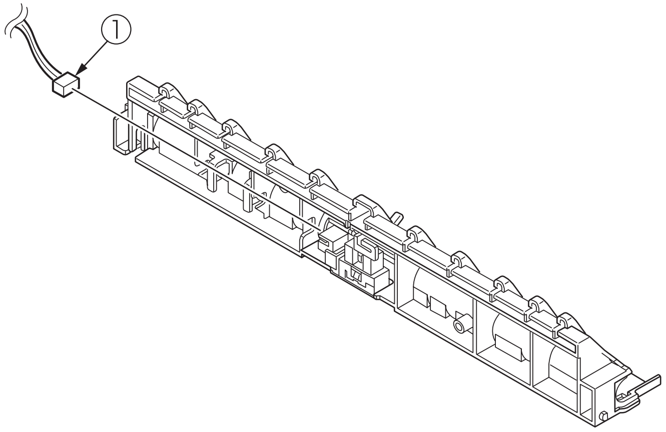
4.2.7.8 Cable (ADF-Rev SNS)

(1) Remove the cable ① .



4.2.7.9 Cable (ADF-Reg SNS)

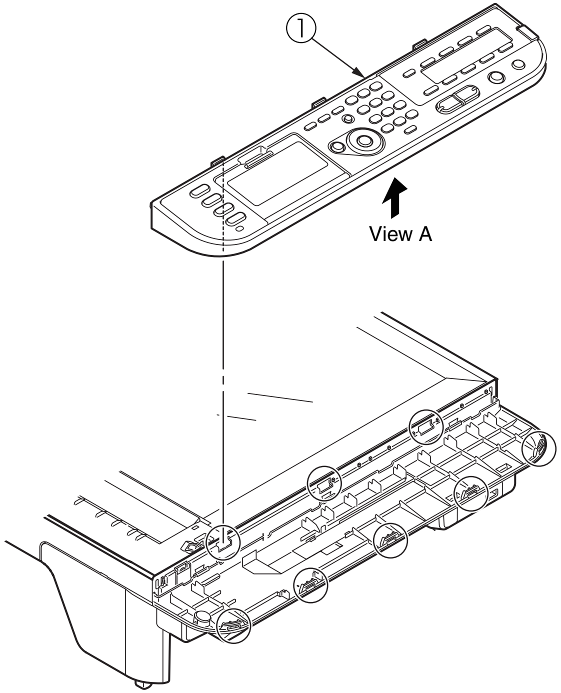
(1) Remove the cable ① .

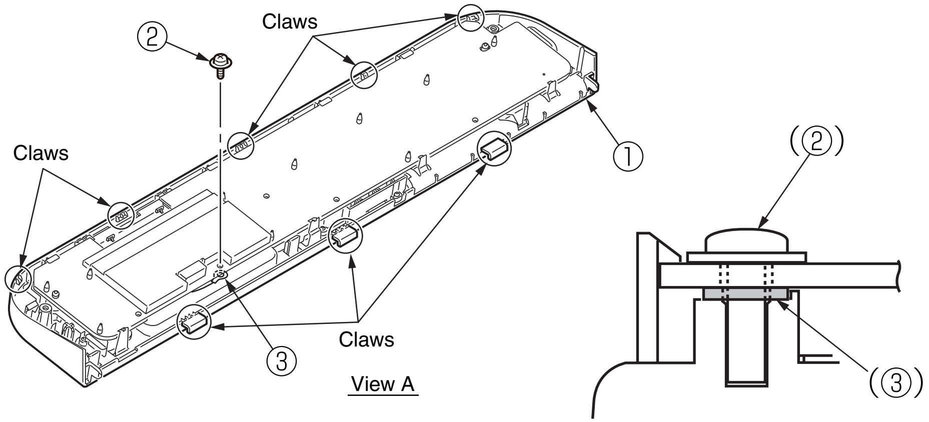


4.2.7.10 Frame-assy-OP

(1) Remove the eight claws to remove the frame-assy-OP ① .

(2) Remove the screw ② to remove FG cable ③ .

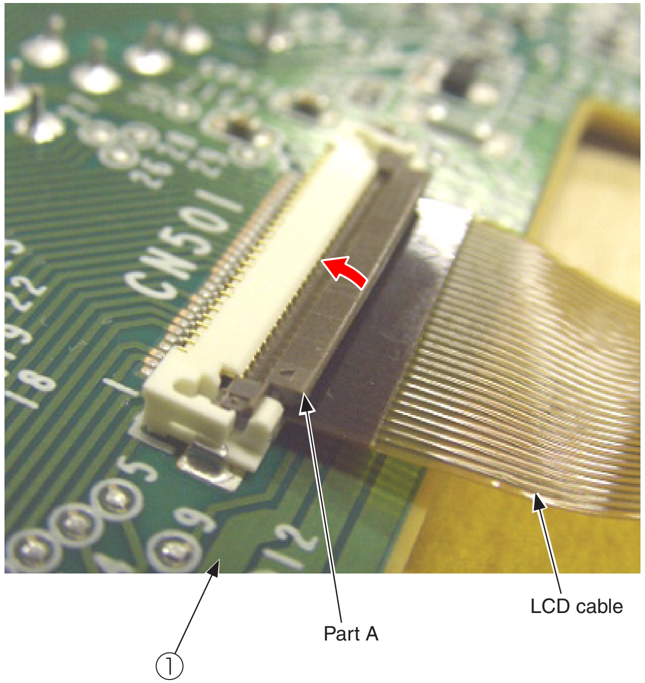



②
Claws
Claws
①
(②)
③
Claws
View A
(③)

4.2.7.11 Frame-OP-panel / OPE board (MC561)

(1) Remove the eight claws to remove the OPE board(OPM) ① .

(2) Remove the LCD cable, while part A is raised in the direction of arrow.


LCD cable
Part A
①

Method of removing LCD cable

(3) Remove the rubber-pad (R) ② and rubber-pad (L) ③ .

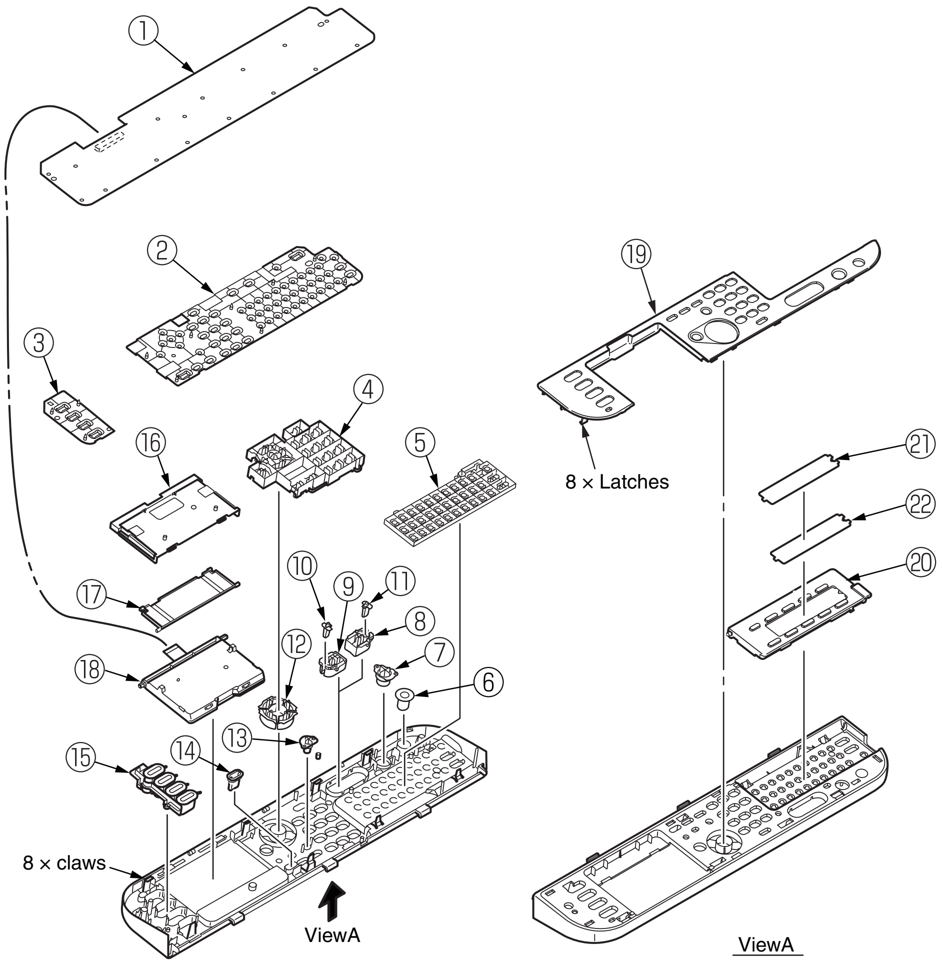
(4) Remove the button and lens ④ to ⑮ .

(5) Remove the cover bottom ⑯ and cover-cable ⑰ and LCD-assy ⑱ .

(6) Remove the eight latehes to remove the cover-op-panel ⑲ .

(7) Remove the cover-KB-assy ⑳ .

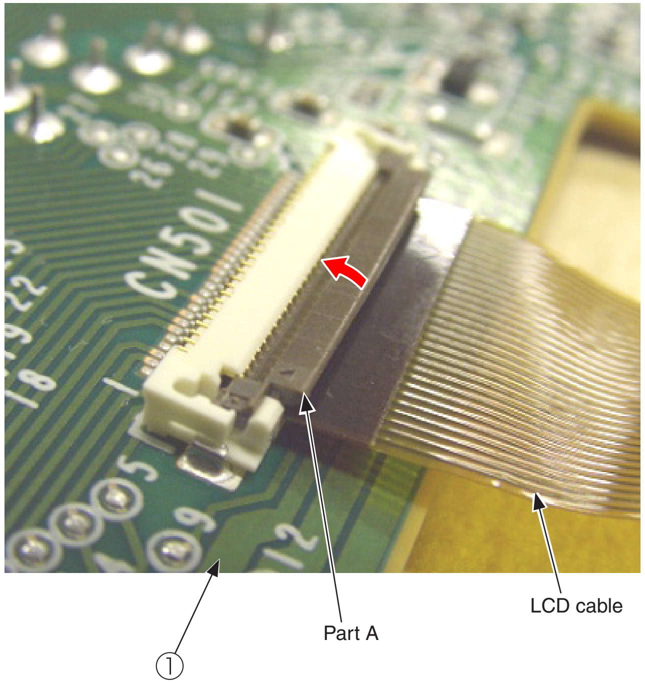
(8) Remove the film-one-touch ㉑ and sheet-one-touch ㉒ .


①
②
⑲
③
④
⑯
⑤
8 × Latches
㉑
㉒
⑩
⑨
⑪
⑰
⑳
⑧
⑫
⑦
⑱
⑥
⑬
⑮
⑭
8 × claws
ViewA
ViewA

4.2.7.12 Frame-OP-panel / OPE board (MC361)

(1) Remove the eight claws to remove the OPE board(OPM) ① .

(2) Remove the LCD cable, while part A is raised in the direction of arrow.


LCD cable
Part A
①

Method of removing LCD cable

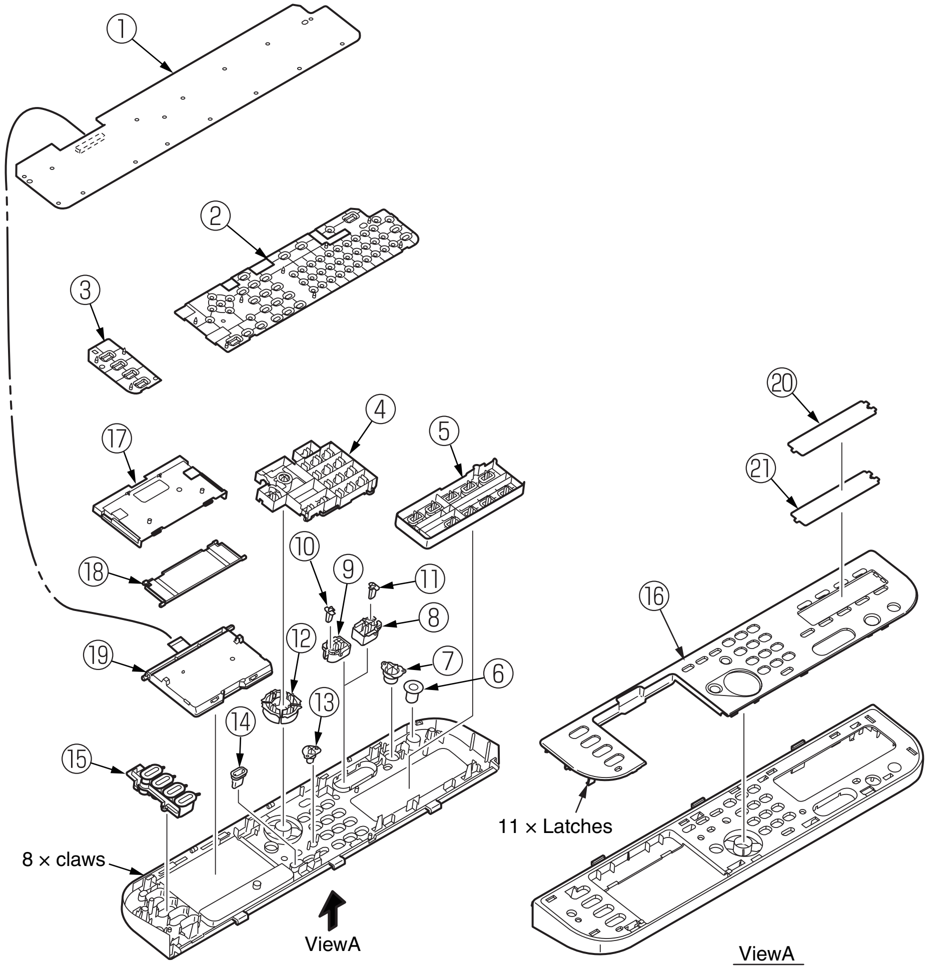
(3) Remove the rubber-pad (R) ② and rubber-pad (L) ③ .

(4) Remove the button and lens ④ to ⑮ .

(5) Remove the eleven latehes to remove the cover-op-panel ⑯ .

(6) Remove the cover bottom ⑰ and cover-cable ⑱ and LCD-assy ⑲ .

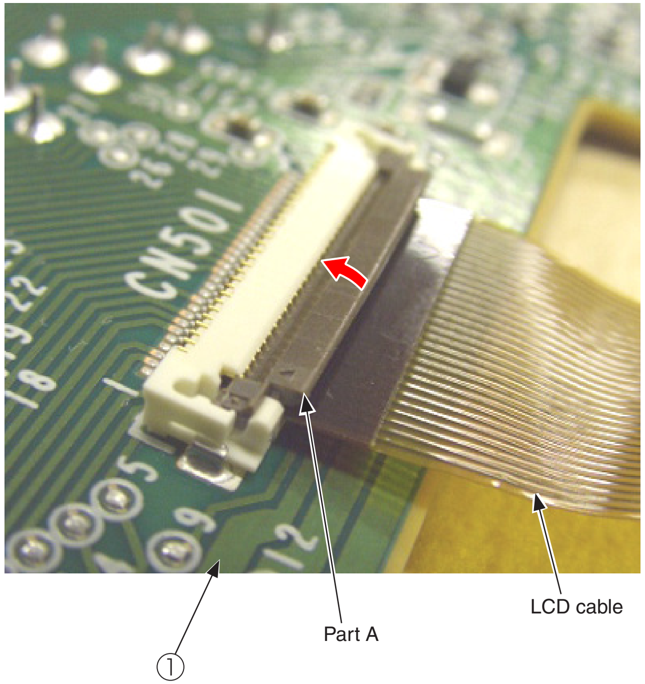
(7) Remove the film-one-touch ⑳ and sheet-one-touch ㉑ .


①
②
③
④
⑤
⑰
⑳
㉑
⑩
⑨
⑪
⑱
⑧
⑯
⑫
⑲
⑦
⑥
⑬
⑭
⑮
11 × Latches
8 × claws
ViewA
ViewA

4.2.7.13 Frame-OP-panel / OPE board (MC351)

(1) Remove the eight claws to remove the OPE board(OPM) ① .

(2) Remove the LCD cable, while part A is raised in the direction of arrow.


LCD cable
Part A
①

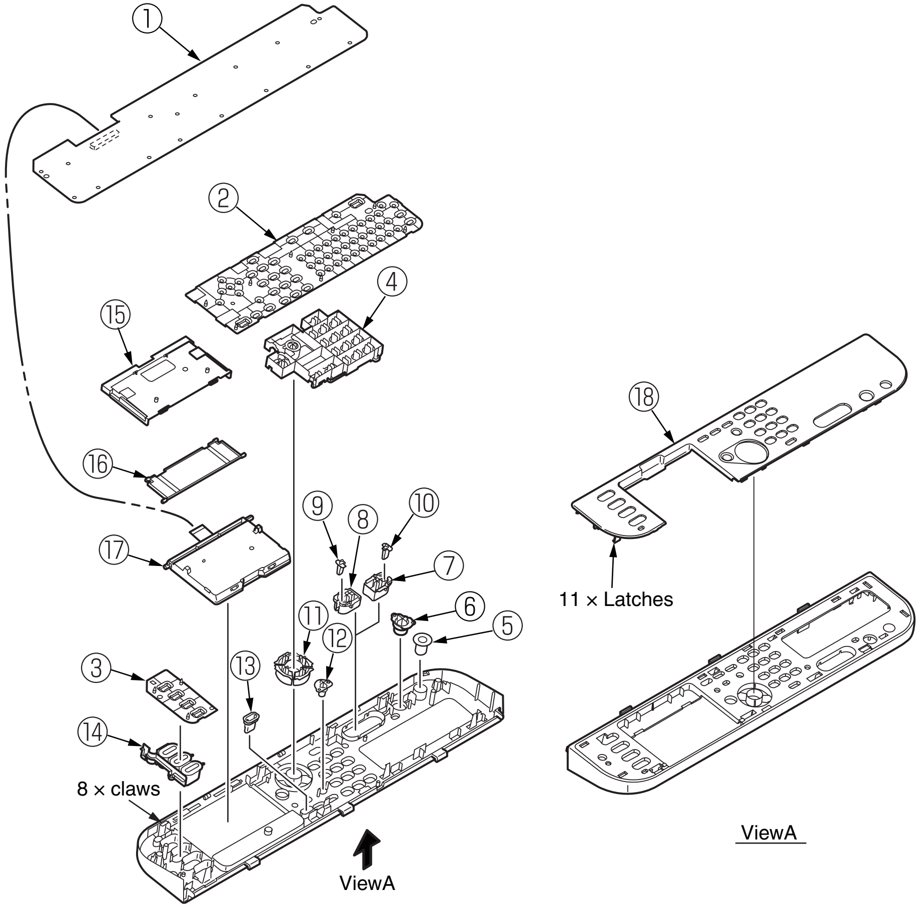
Method of removing LCD cable

(3) Remove the rubber-pad (R) ② and rubber-pad (L) ③ .

(4) Remove the button and lens ④ to ⑭ .

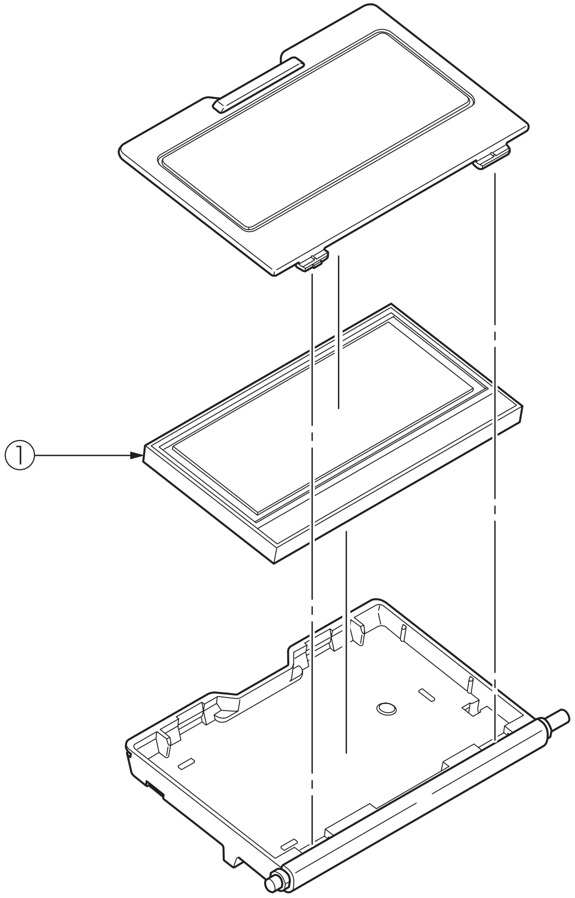
(5) Remove the cover bottom ⑮ and cover-cable ⑯ and LCD-assy ⑰ .

(6) Remove the eleven latehes to remove the cover-op-panel ⑱ .


①
②
④
⑮
⑱
⑯
⑨
⑧
⑩
⑰
⑦
⑥
⑪
⑤
⑫
11 × Latches
③
⑬
⑭
8 × claws
ViewA
ViewA

4.2.7.14 LCD-assy

(1) Remove the LCD-assy ① .



4.2.7.15 Frame-assy-FB

(1) Remove the four screws (black L=10mm) ① , remove the screw (silver) ② .

(2) Take off two parts (Plate-FG-SU ③ / Plate-FG-FAX ④)

(3) Remove the cover-SU ⑤ .

(4) Remove the four screws (silver) ⑥ and remove the FG cable ⑦ to ⑩ .

(5) And remove the plate-shield-SU ⑪ .

(6) Remove the two screws (silver) ⑫ , remove the plate-shield-FAX ⑬ .

(7) Remove the all FAX-board cables.

(8) Remove the three screws (silver) ⑭ and remove the FAX-board ⑮ .

(9) Remove the screw (black) ⑯ , remove the two screws (silver) ⑰ .

(10) And remove the clamp-cable ⑱ and FGcable ⑲ .

(11) Remove the plate-FAX-board ⑳ .

(12) Remove the all SU-board cable (㉑ etc.).

(13) Remove the four screws (silver) ㉒ and remove the SU-board ㉓ .

(14) Remove the two screws (black) ㉔ .

(15) Remove the plate-SU-board ㉕ .

(16) Pull core x2 ㉖ (SSC-40-12 (1051073C4002)) out of FFC cable.

(17) Remove the FFC cable (20706FWR1.0L-30-105) ㉗ .

(18) Remove the four screws (black L=10mm) ㉘ .

(19) Remove the cover-hinge (L) ㉙ .

(20) And remove the plate-hinge-L (caulking) ㉚ .

(21) Remove the seven screws (black) ㉛ .

(22) Remove the cam-hinge ㉜ .

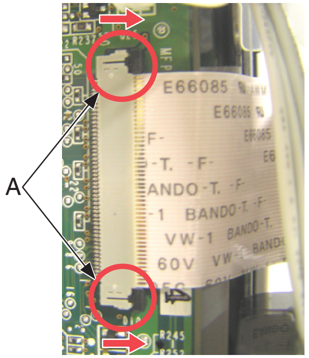
(23) Remove the two screws (black) ㉝ .

(24) Remove the cover-assy-LF ㉞ .

(25) Remove the four screws (black) ㉟ and take out a FFC-cable (20706ASFBNCD0550-642) ㊱ wrapped in film-FFC ㊲ .

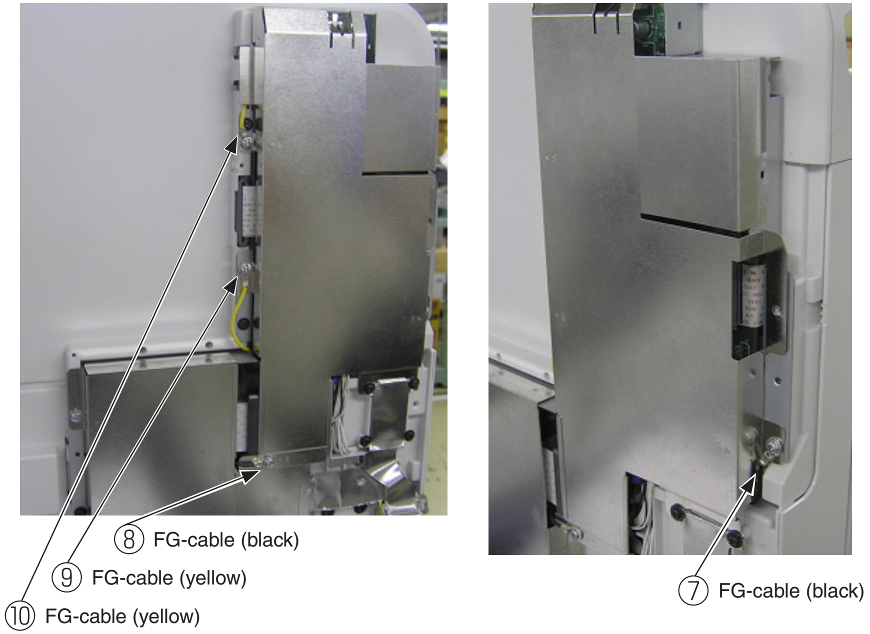
(26) Pull out FFC-cable (20706FWR1.0-16-320) ㊳ from frame-bottom.

Note! When you remove a FFC cable ㉑ , refer to the following figure.
Refer to the following figure for the position of FG-cable.
It exchanges it without detaching the scanner unit from the MFP when the FAX-board and the SU-board are exchanged.

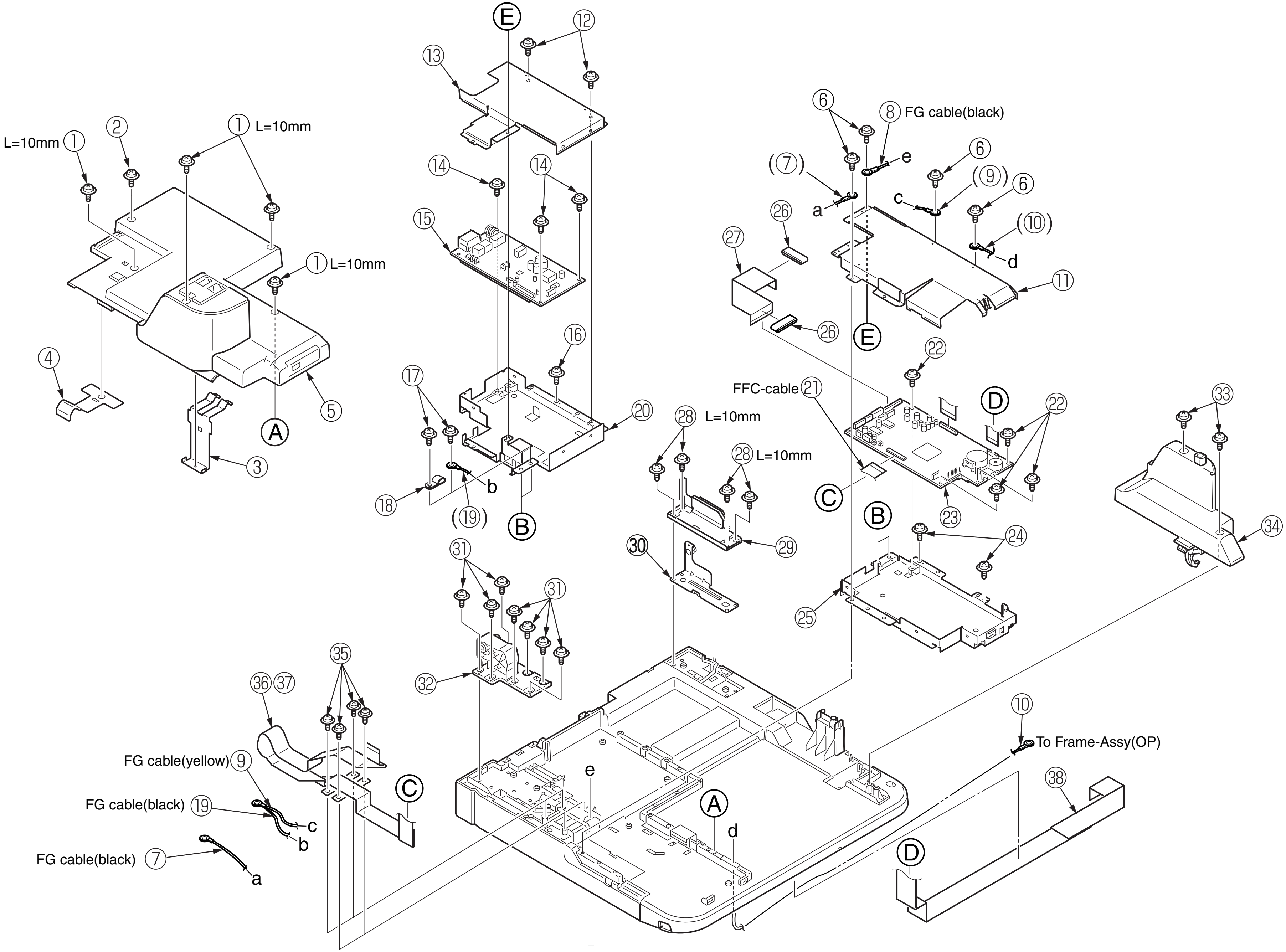


The A section is shifted in the direction of an arrow.

Method of removing FFC cable

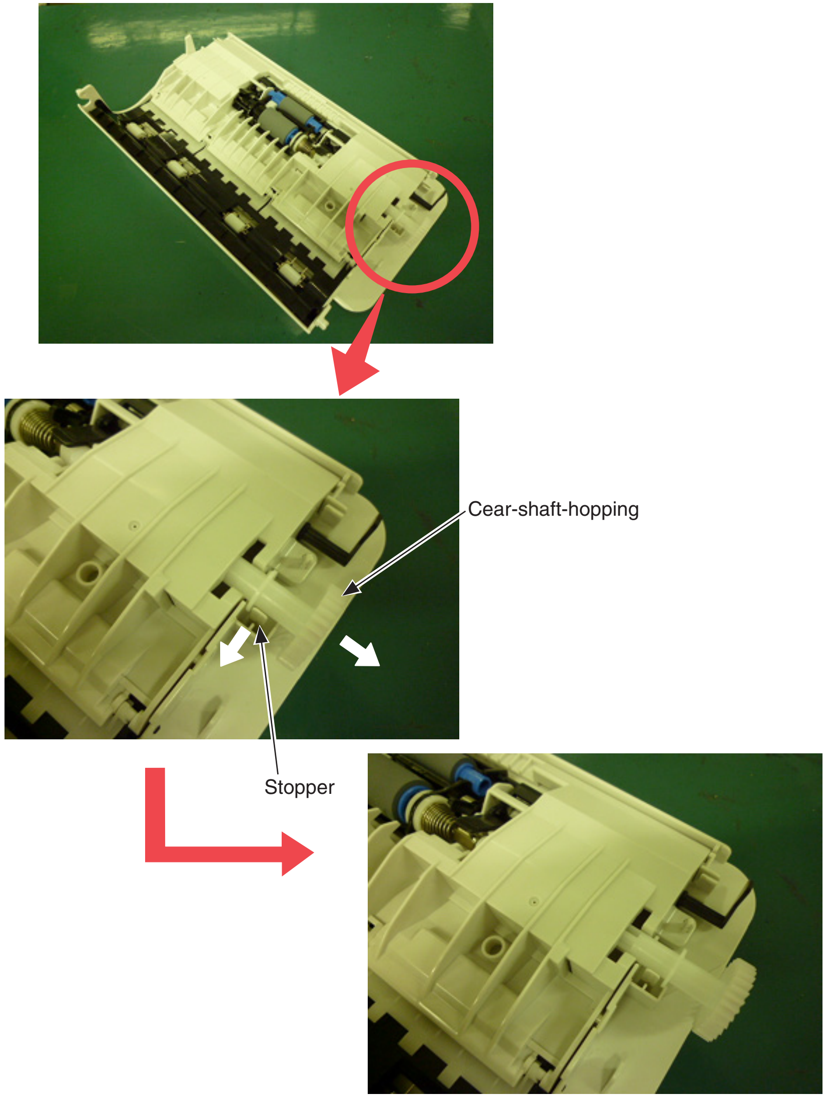


FG cable position

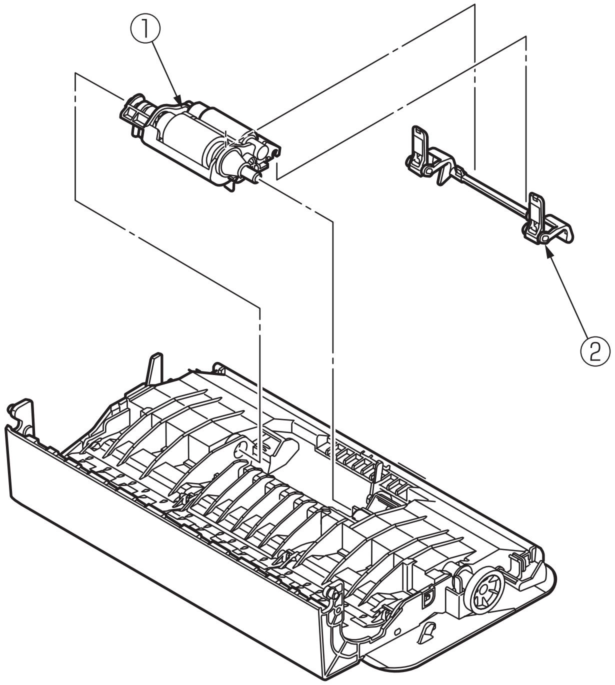

Ⓔ
⑫
⑬
⑭
⑭
⑮
⑯
⑰
⑱
(⑲)
b
Ⓑ
⑳
L=10mm ①
②
① L=10mm
① L=10mm
④
⑤
Ⓐ
③
⑥
⑧ FG cable(black)
e
(⑦)
a
⑥
(⑨)
⑥
c
(⑩)
d
㉖
㉗
㉖
Ⓔ
⑪
㉒
FFC-cable ㉑
Ⓓ
㉒
Ⓒ
㉓
Ⓑ
㉔
㉕
㉘ L=10mm
㉘ L=10mm
㉙
㉚
㉝
㉞
㉛
㉛
㉜
㉟
㊱㊲
FG cable(yellow) ⑨
FG cable(black) ⑲
c
b
FG cable(black) ⑦
a
Ⓒ
e
Ⓐ
d
⑩
To Frame-Assy(OP)
㊳
Ⓓ

4.2.7.16 Frame-assy-hopping-ADF

(1) Slide the Gear-shaft-hopping while opening the stopper.

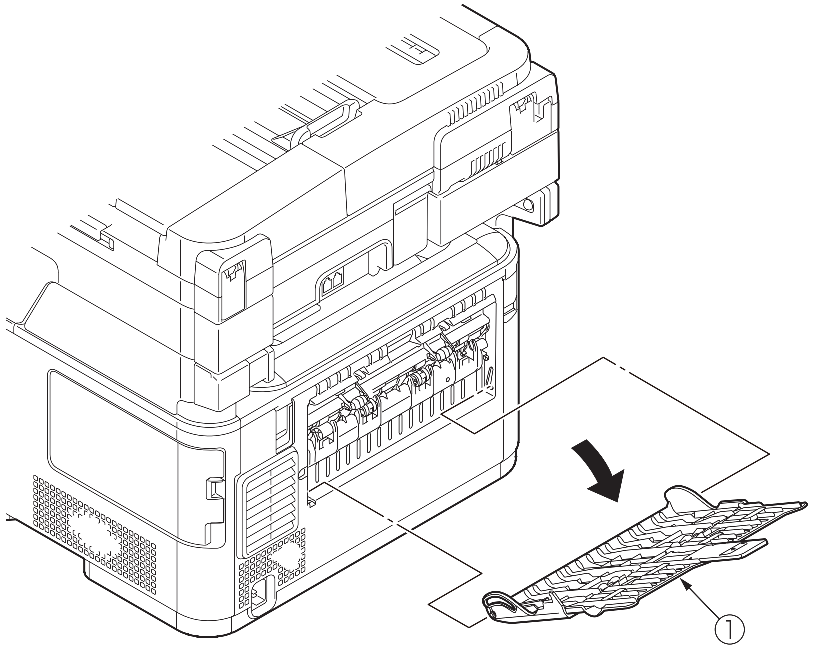

Cear-shaft-hopping
Stopper

(2) Remove the Frame-assy-hopping-ADF ① and the Stopper-Assy-Gate ② .



4.2.8 Face-up tray

(1) Open the face-up tray ① in the direction of the arrow and, warping it, disengage two portions to detach the face-up tray.



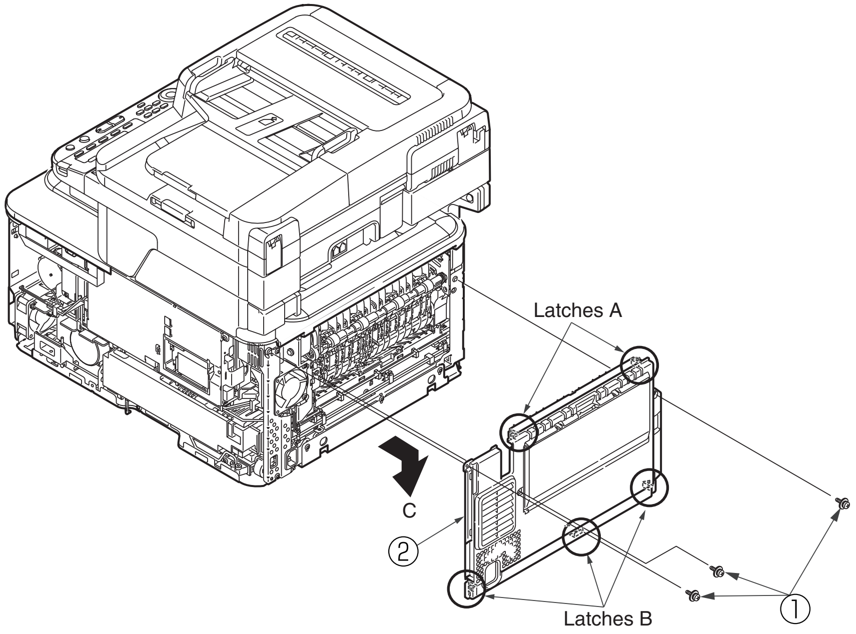
4.2.9 Rear cover

(1) Remove the left side cover and the right side cover. (See 4.2.3, 4.2.4)

(2) Remove the three (silver-colored) screws ① .

(3) Unlatch two latches A with a flat-blade screwdriver.

(4) Unlatch three latches B to slide the rear cover ② in the direction of the arrow C to detach it.

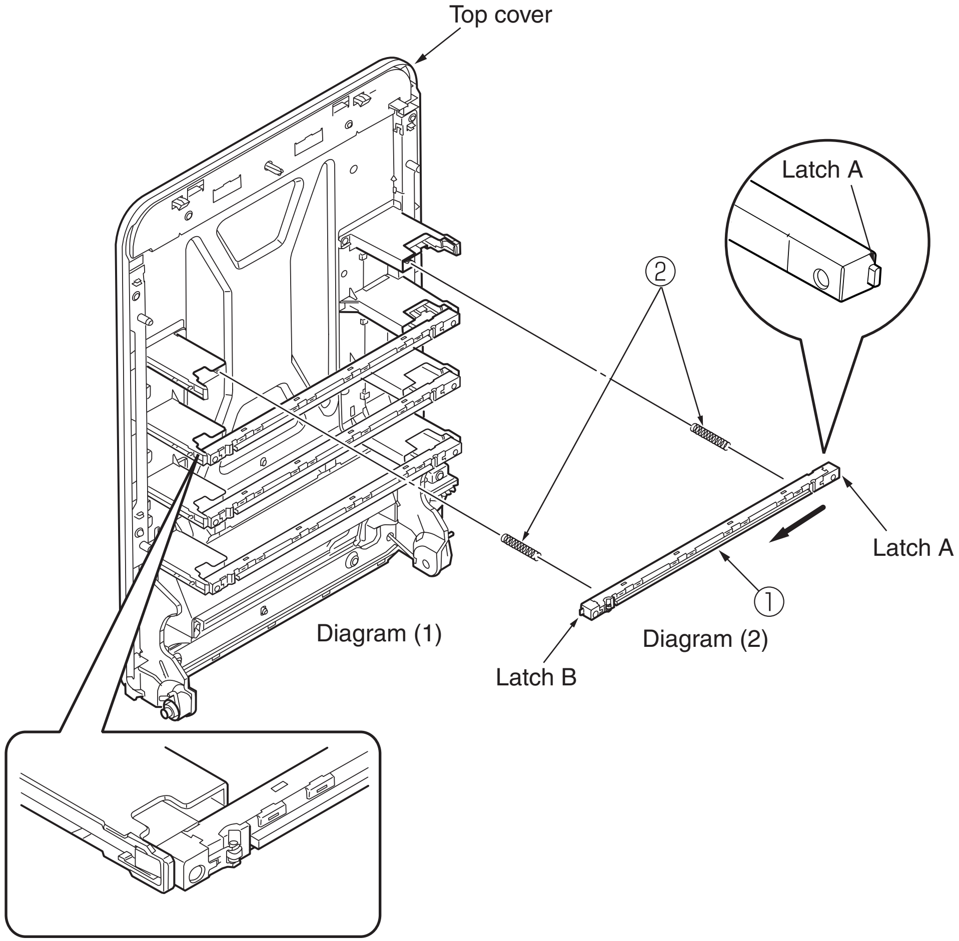


4.2.10 LED assembly. and LED assembly springs

(1) Open the Scanner and the top cover.

(2) Remove the cables of the LED assembly. As shown in diagram (2), apply force in the direction of the arrow to unlatch the latch A and then the latch B to detach the LED assembly ① .

(3) Turning the LED assembly springs ② clockwise, detach it.

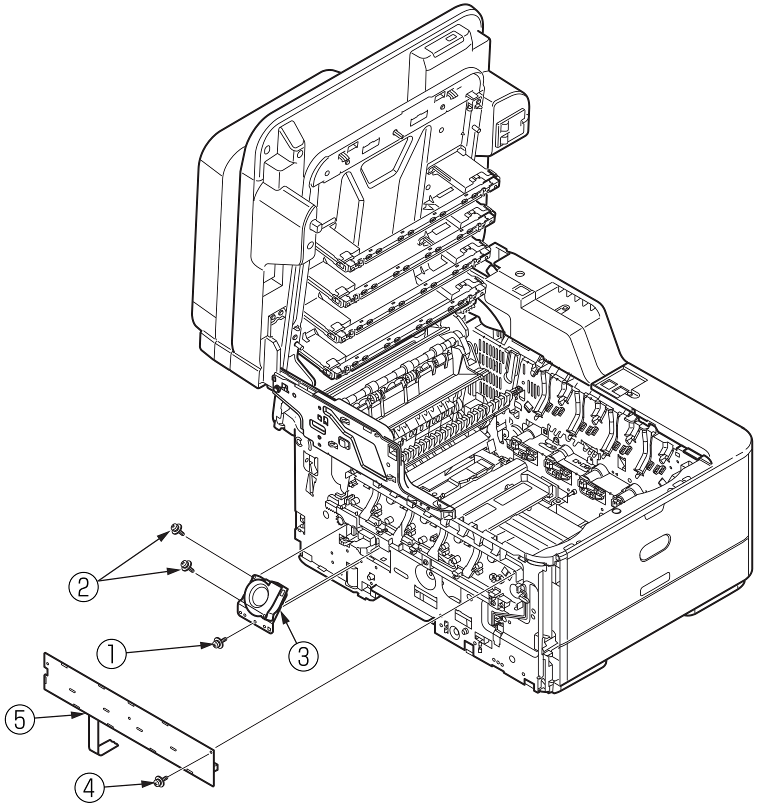


4.2.11 Image drum fan and ZHJ board

(1) Remove the left side cover. (See 4.2.3)

(2) Remove the (silver-colored) screw ① and the two (silver-colored) screws ② to detach the image drum fan ③ .

(3) Remove the (silver-colored) screw ④ and unlatch five portions to detach the ZHJ board ⑤ .



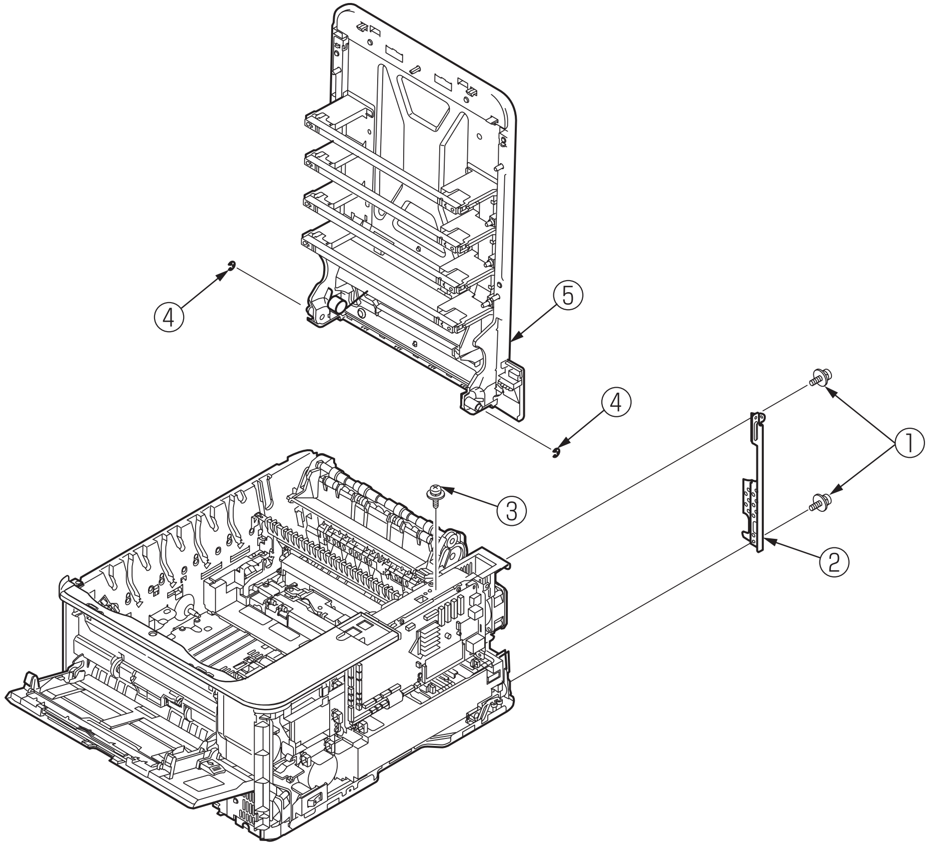
4.2.12 Top cover assembly

(1) Remove the left side cover, the right side cover and the rear cover.

(2) Remove the plate shield assembly and then the LED head cables.

(3) Remove the two screws ① to remove the plate-rear ② .

(4) Remove the (silver-colored) screw ③ and then the two E-shaped retainer rings ④ to detach the top cover ⑤ .



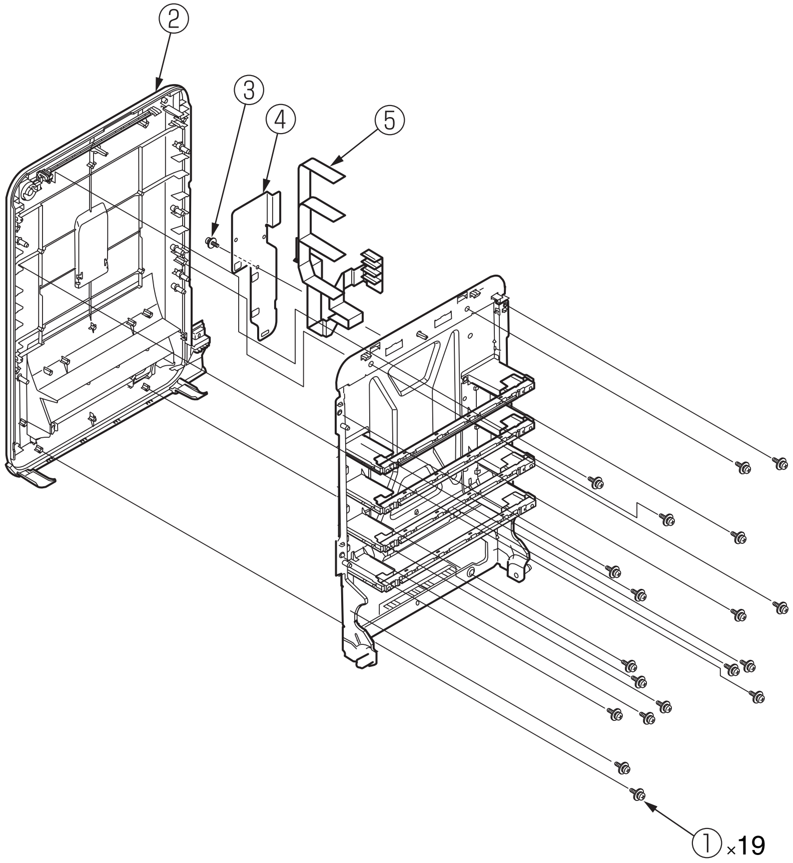
4.2.13 Top cover and LED head cable assembly

(1) Demount the top cover assembly.

(2) Remove the 19 (black) screws ① to detach the top cover ② .

(3) Remove the (silver-colored) screw ③ to detach the Film-Head-FFC-Shield ④ .

(4) Detach the LED head cable assembly ⑤ .

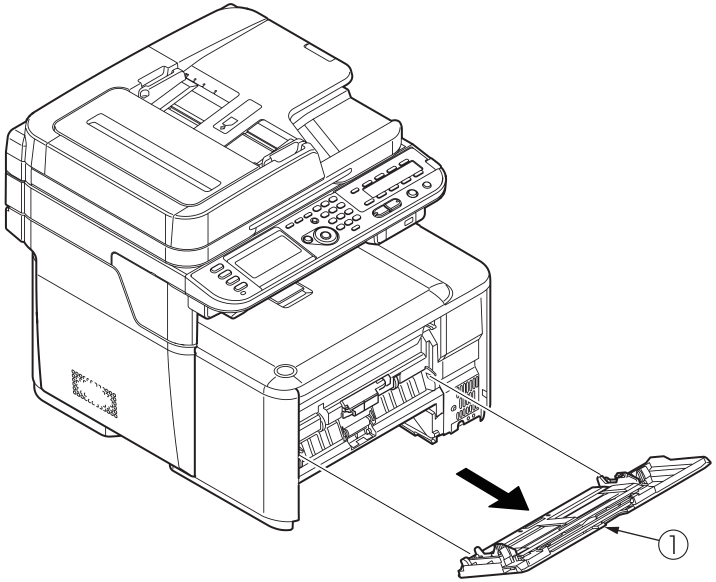


4.2.14 MPT assembly

(1) Remove the cassette assembly.

(2) Open the MPT assembly ① .

(3) Pull the direction of the arrow and remove the MPT assembly ① .



4.2.15 Front fan, hopping motor, rear fan, image drum motor and cover-open switch

(1) In the case of replacing the ID motor, check the PU FW version before replacing the ID motor.

- When the PU FW version is xx.xx.11 or later, there is no need to update the PU FW for ID motor replacement.
- When the PU FW version is xx.xx.10 or earlier, the PU FW must be updated to the latest version before ID motor replacement. After updating the PU FW (see 9.3), replace the ID motor.

	PU FW version to be updated before ID motor replacement	PU FW version not needing update for ID motor replacement
	~ 00.06.10	00.06.11 ~

(2) Remove the left side cover, the right side cover, the rear cover, the MPT assembly, the plate-rear, the plate shield assembly, low voltage power supply and the cover front assembly.

(3) Remove the two (silver-colored) screws ① to detach the hopping motor ② .

(4) Remove the two (silver-colored) screws ③ to detach the rear fan ④ .

(5) Remove the two (silver-colored) screws ⑤ and unlatch the frame-MPT-side ⑥ to remove it.

(6) Remove the two (silver-colored) screws ⑦ to detach the front fan ⑧ .

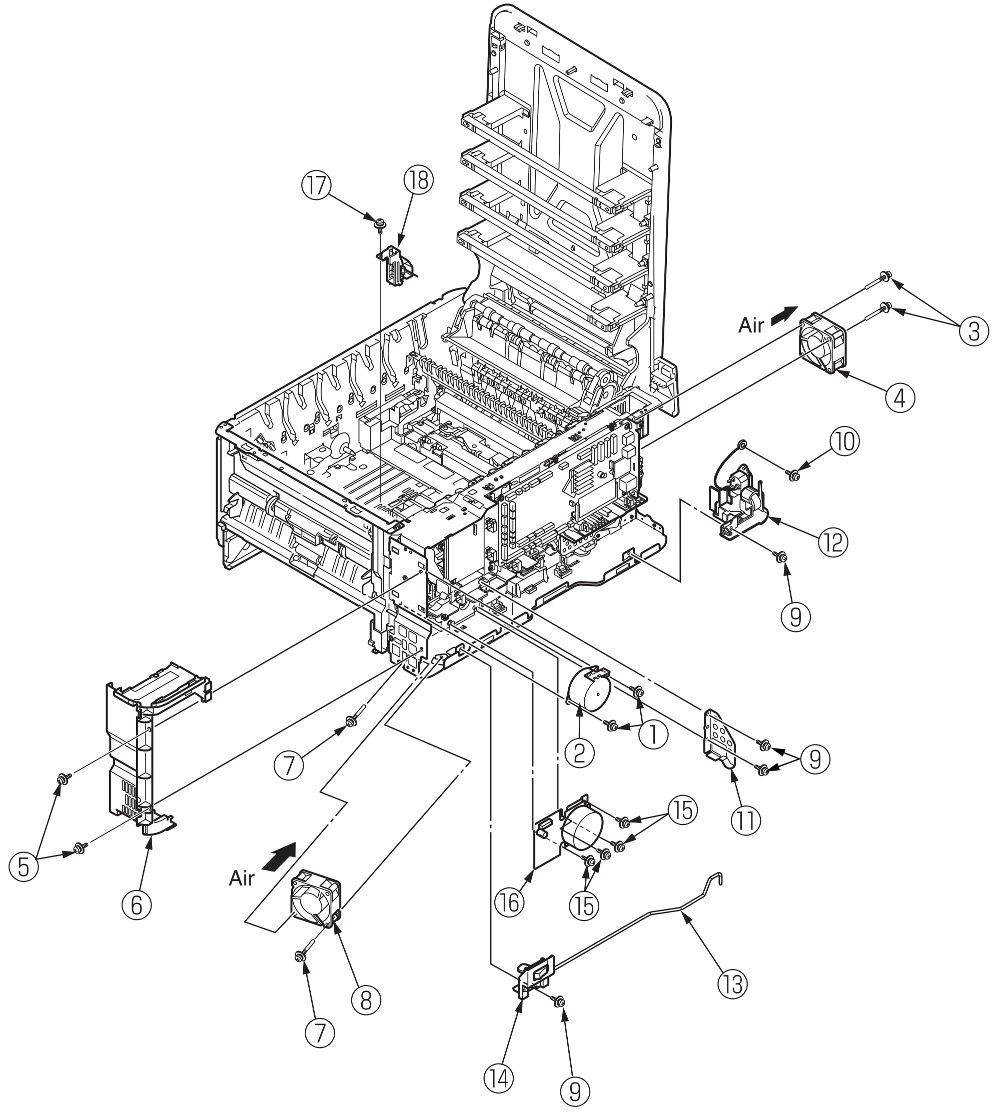
(7) Remove the four (silver-colored) screws ⑨ and the (FG) screw ⑩ to remove the plate support ⑪ , the AC inlet ⑫ , the shaft ⑬ and the switch ⑭ .

(8) Remove the four (silver-colored) screws ⑮ to detach the image drum motor ⑯ .

(9) Remove the screw ⑰ to detach the cover-open switch ⑱ .

Note!

- Observe the orientation to attach the fan ④ , ⑧ .
- While removing or installing FAN ④ , ⑧ do not press impeller of the FAN.
  In case of the impeller unfastened by mistake, do not reuse it and install a new FAN.



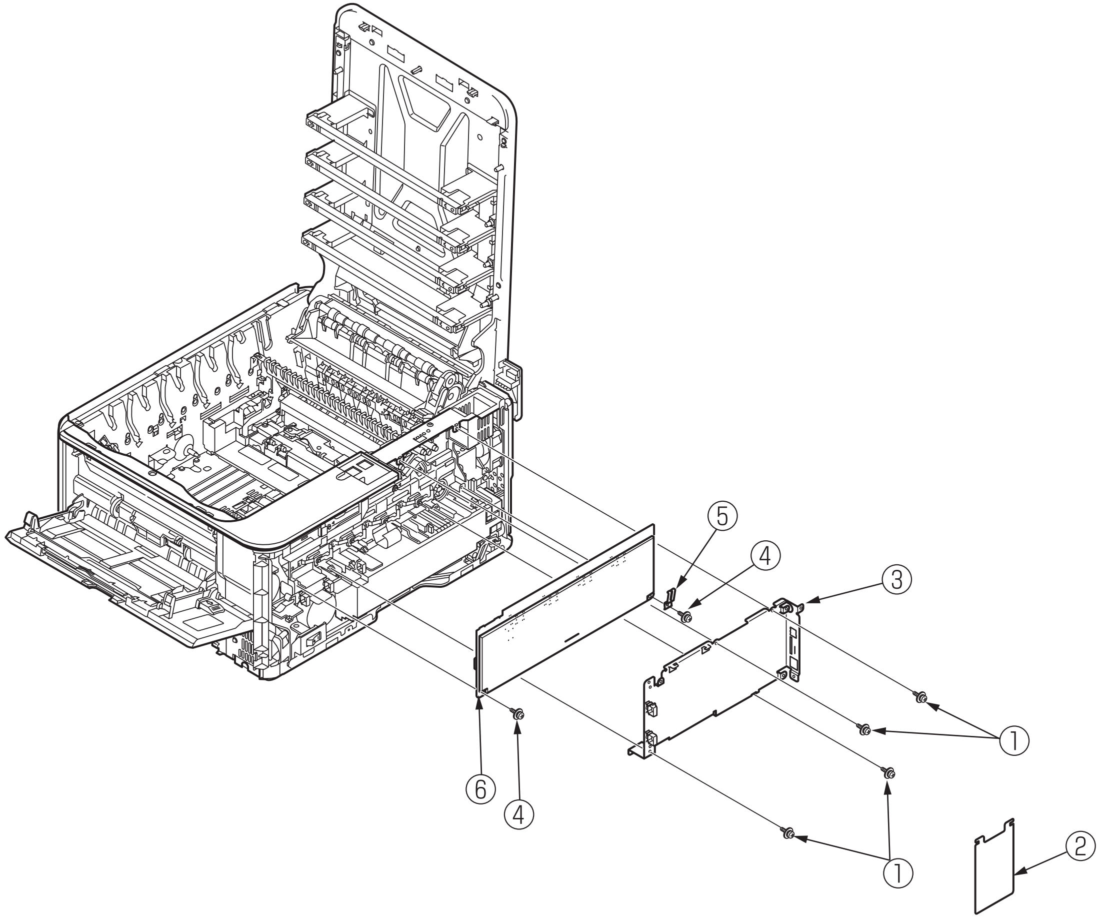
4.2.16 High-voltage power supply board

(1) Remove the right side cover and the CU/PU board(CLP).

(2) Remove the four (silver-colored) screws ① to remove the film-PUCU board ② and the plate board ③ .

(3) Remove the two (silver-colored) screw ④ to remove the plate-FG ⑤ .

(4) Unlatch the four portions to detach the high-voltage power supply board ⑥ .



4.2.17 Guide-ejection assembly, fuser connector assembly and color-registration assembly

(1) Remove the left side cover, the right side cover, the rear cover and the top cover assembly.

(2) Remove the CU/PU board(CLP) and the low-voltage power supply.

(3) Detach the guide-ejection assembly ① .

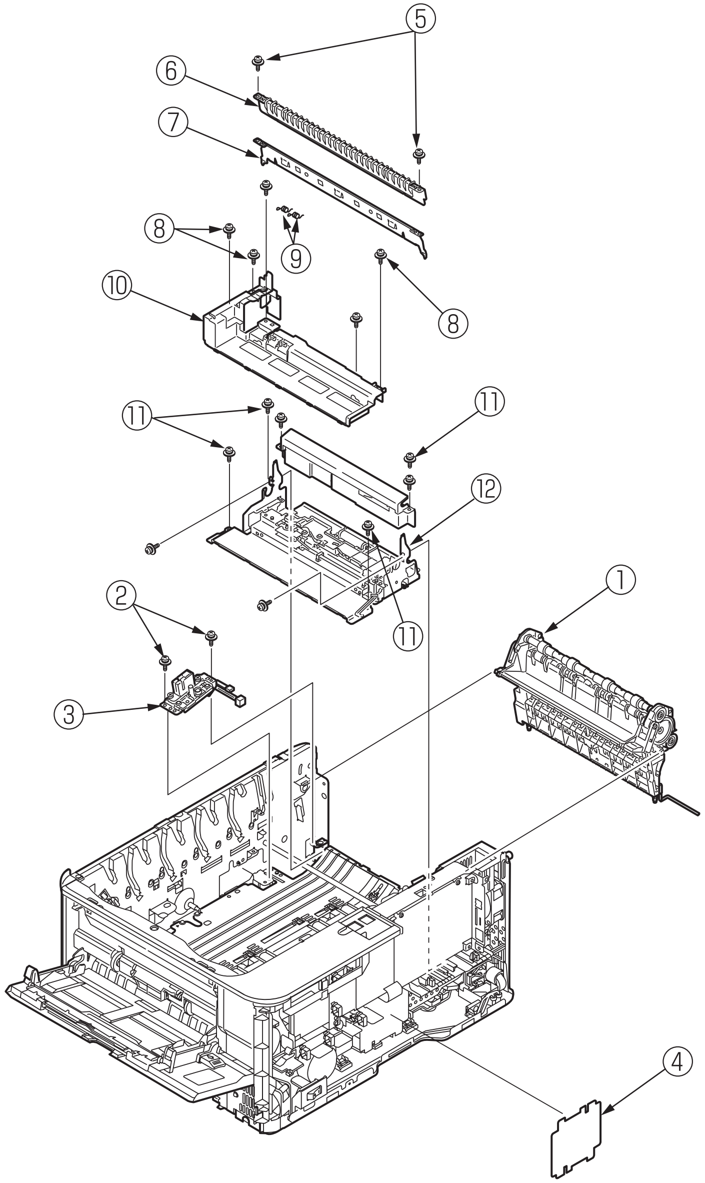
(4) Remove the two (silver-colored) screws ② to detach the fuser connector assembly ③ .

(5) Remove the film-power board ④ .

(6) Remove the two (silver-colored) screws ⑤ to remove the cover-beam ⑥ and the plate-beam ⑦ .

(7) Remove the three (silver-colored) screws ⑧ to remove the two torsion springs ⑨ and then the cover-code ⑩ .

(8) Remove the four (silver-colored) screws ⑪ to detach the color-registration assembly ⑫ .



4.2.18 Frame-MPT assembly and feeder assembly

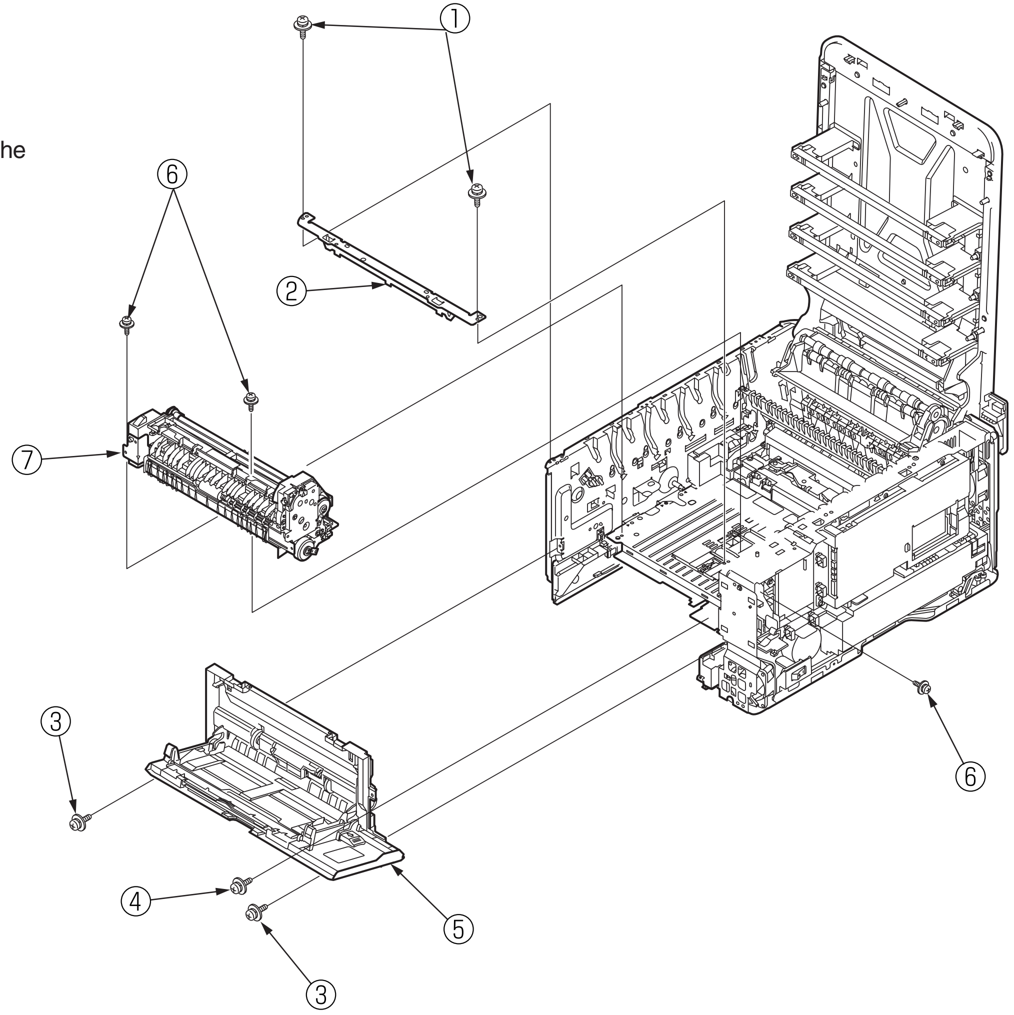
(1) Remove the left side cover, the right side cover, the rear cover, the hopping motor, the plate shield assembly, the operator panel assembly, the cover-open switch and the frame-MPT-side.

(2) Remove the RGSNS, HPSNS and MPC cables of the CU/PU board(CLP).

(3) Remove the two (silver-colored) screws ① to remove the plate-front ② .

(4) Remove the two (silver-colored) screws ③ and the (black) screw ④ and unlatch the two portions to detach the frame-MPT assembly ⑤ .

(5) Remove the three (silver-colored) screws ⑥ to detach the feeder assembly ⑦ .



4.2.19 Side-L assembly, side-R assembly and base assembly

(1) The side-R assembly ⑦ contains a fuser motor.

PU FW update is required for fuser motor replacement in some cases.

Therefore, in the case of replacing the side-R assembly ⑦ (which eventually involves fuser motor replacement), check the PU FW version before replacing the side-R assembly ⑦ .

- When the PU FW version is xx.xx.11 or later, there is no need to update the PU FW for replacement of the side-R assembly ⑦ .
- When the PU FW version is xx.xx.10 or earlier, the PU FW must be updated to the latest version before replacement of the side-R assembly ⑦ . After updating the PU FW (see 9.3), replace the side-R assembly ⑦ .

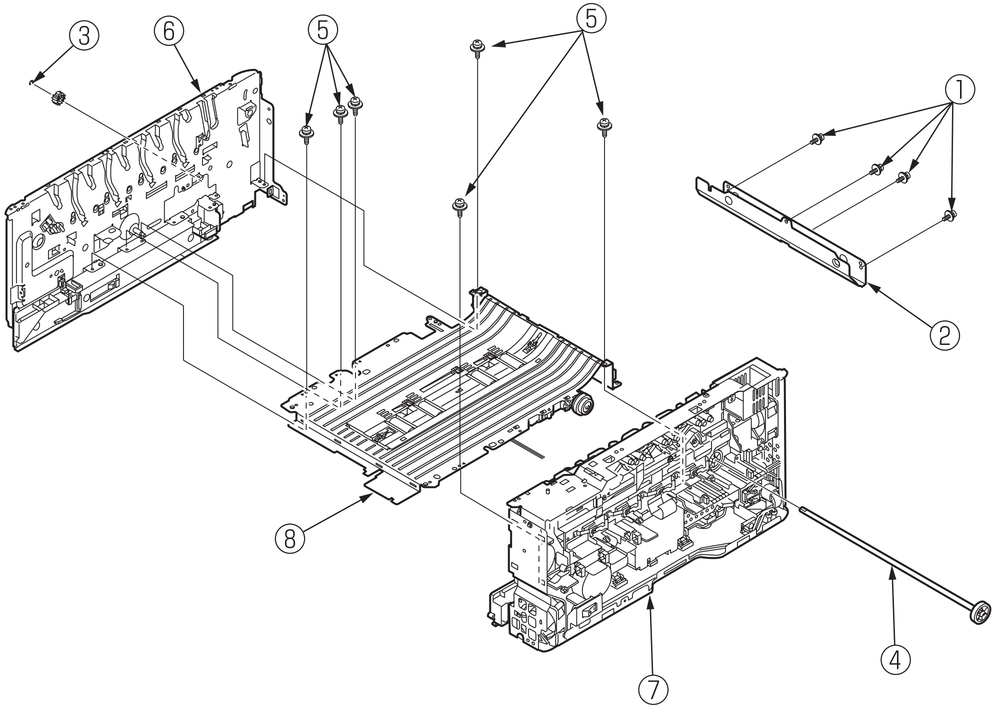
	PU FW version to be updated before replacement of the side-R assembly ⑦	PU FW version not needing update for replacement of the side-R assembly ⑦
	~ 00.06.10	00.06.11 ~

(2) Remove the left side cover, the right side cover, the rear cover, the top cover assembly, the operator panel assembly, the feeder assembly, the guide-ejection assembly and the registration assembly.

(3) Remove the four (silver-colored) screws ① to remove the plate-bottom ② .

(4) Remove the E-shaped retainer ring ③ and then the shaft ④ .

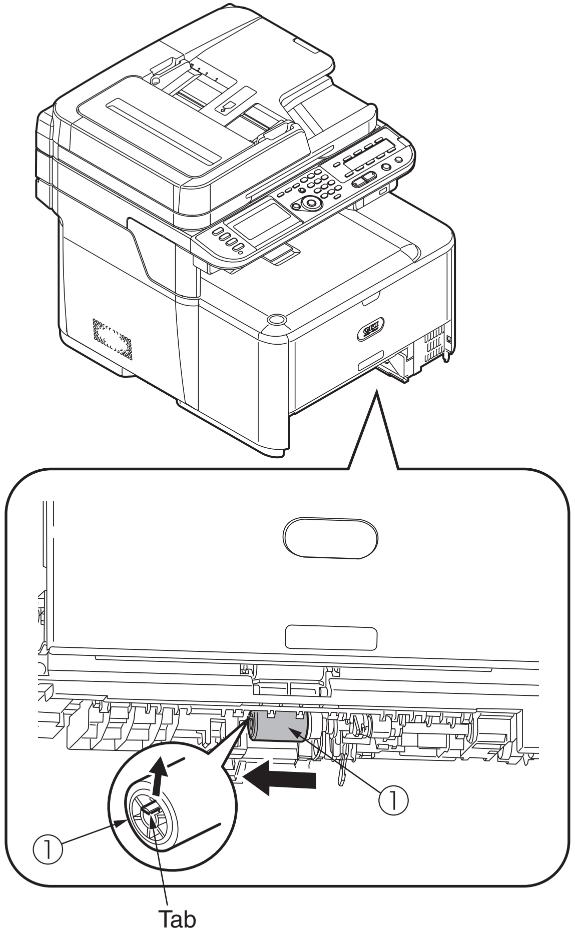
(5) Remove the six (silver-colored) screws ⑤ to detach the side-L assembly ⑥ , the side-R assembly ⑦ and the base assembly ⑧ .



4.2.20 Feed rollers

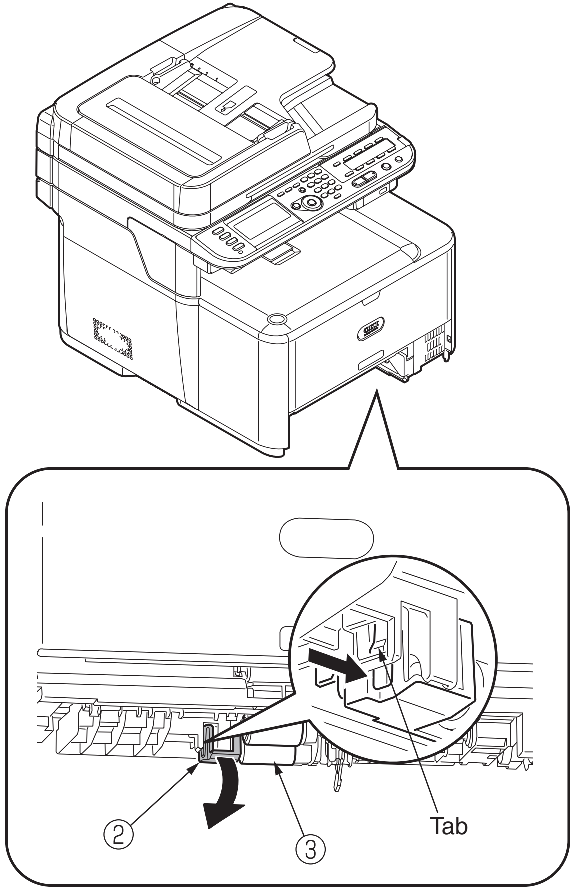
(1) Remove the cassette.

(2) Lift the tab of the front paper feed roller ① outward, slide the front paper feed roller ① to the left and remove it.



(3) Press the tab on the black cover ② attached to the left side of the rear paper feed roller ③ and open the black cover ② downward.

(4) Remove the rear paper feed roller ③ .



4.3 Locations to lubricate

This section shows the locations to lubricate. The other locations must not be lubricated. Lubrication is not required during assembly or disassembly, except that, after lubricant is wiped off locations, the appropriate lubricant specified must be applied to the locations.

Each number circled, accompanied with the number and name of a drawing indicates that the lubrication work with the number is specified in the drawing.

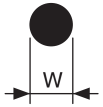
Lubrication work

(1) Lubricant notations and names

EM-30LP:Molykote EM-30LP (part number 44498501)
EM-D110:Molykote EM-D110 (part number 44594501)
PM: Pan motor oil 10W-40 or ZOA 10W-30
GE-334C: FLOIL GE-334C (part number 41823301)
SF-133: HANARL SF-133

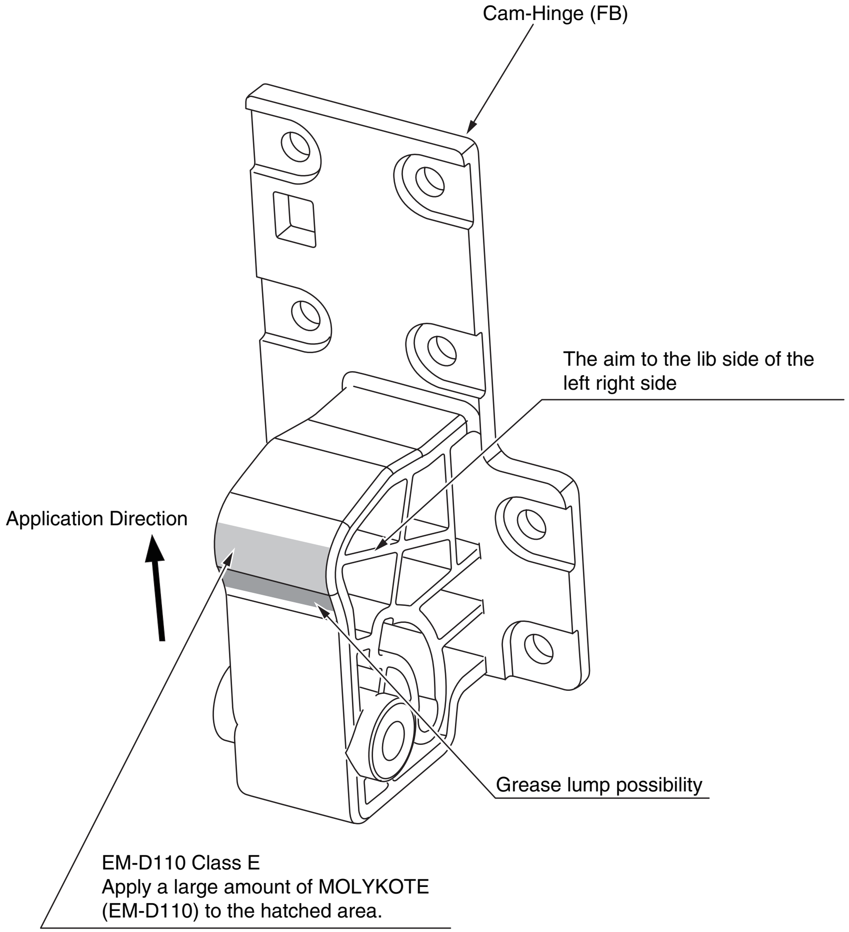
(2) Grease boundary samples

Class	S	A	B	C	D	E	F
Amount applied (cc)	0.0005	0.0003	0.005	0.01	0.03	0.05	0.1
W (mm)	1.24	2.25	2.67	3.37	4.86	5.76	7.26
Sample	●	●	●	●	●	●	●



4.3.1 ADF

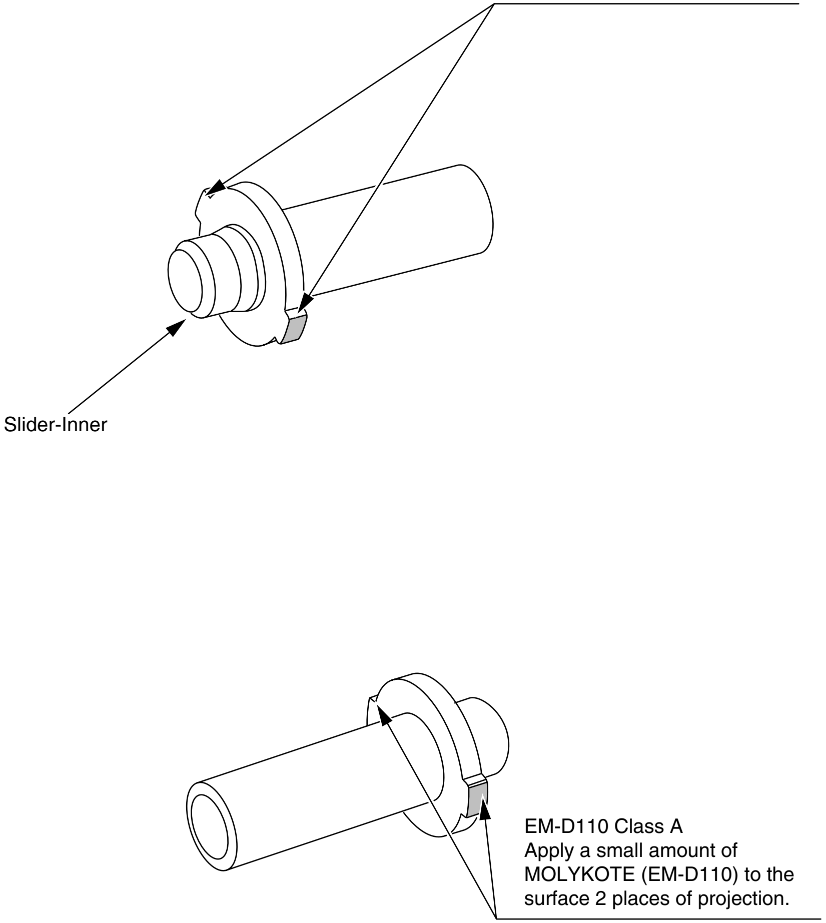
① -1 44597101PP Cam-Hinge (FB)


Cam-Hinge (FB)
The aim to the lib side of the left right side
Application Direction
Grease lump possibility

EM-D110 Class E
Apply a large amount of MOLYKOTE (EM-D110) to the hatched area.

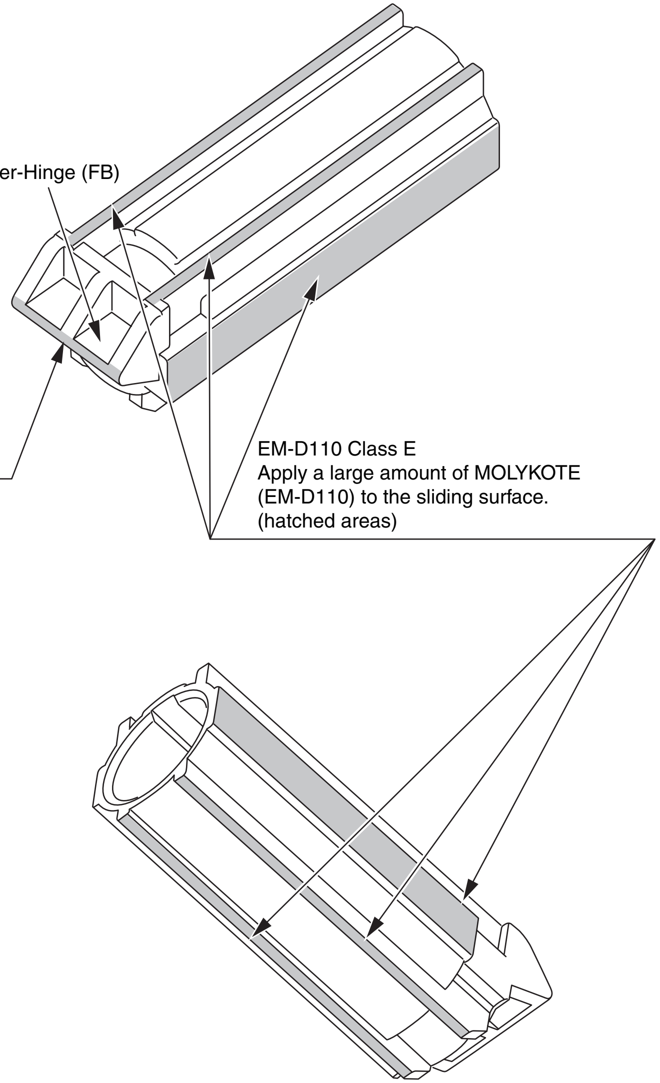
① -2 44527201PP Slider Inner

EM-D110 Class A
Apply a small amount of MOLYKOTE (EM-D110) to the surface 2 places of projection.


Slider-Inner

EM-D110 Class A
Apply a small amount of MOLYKOTE (EM-D110) to the surface 2 places of projection.

① -3 44527301PP Slider-Hinge (FB)



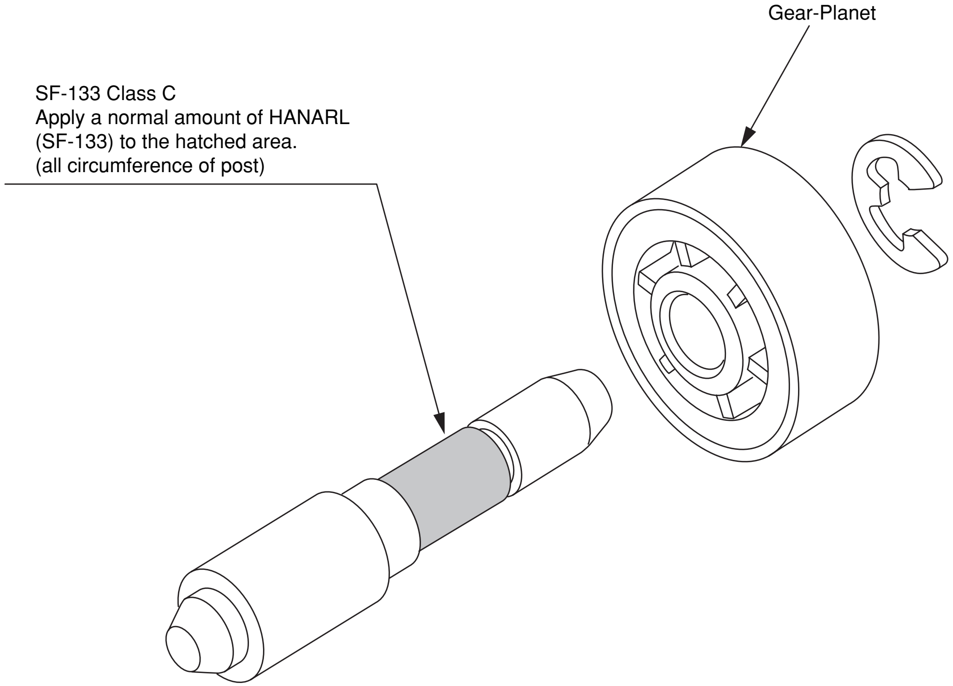
Slider-Hinge (FB)

EM-D110 Class A
Apply a small amount of MOLYKOTE
(EM-D110) to the sliding surface.
(hatched areas)

After apply a MOLYKOTE by ①-1),
It apply a MOLYKOTE using same
Brush in ①-1)
(MOLYKOTE is not added on brush)

EM-D110 Class E
Apply a large amount of MOLYKOTE
(EM-D110) to the sliding surface.
(hatched areas)

② 44659101PA Gear-Idle-Assy

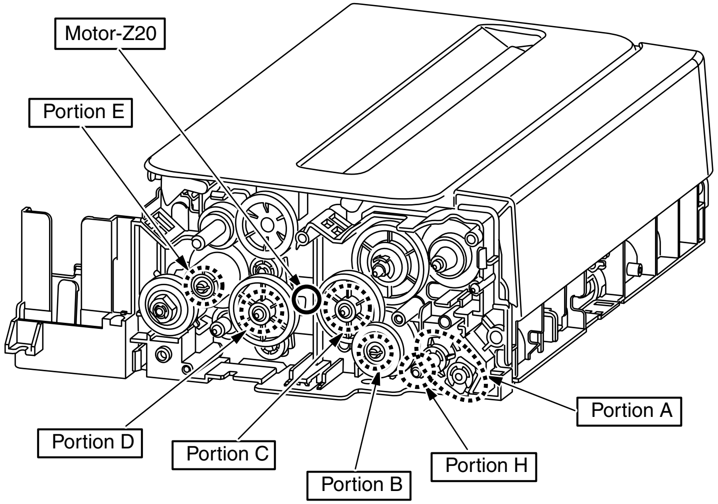


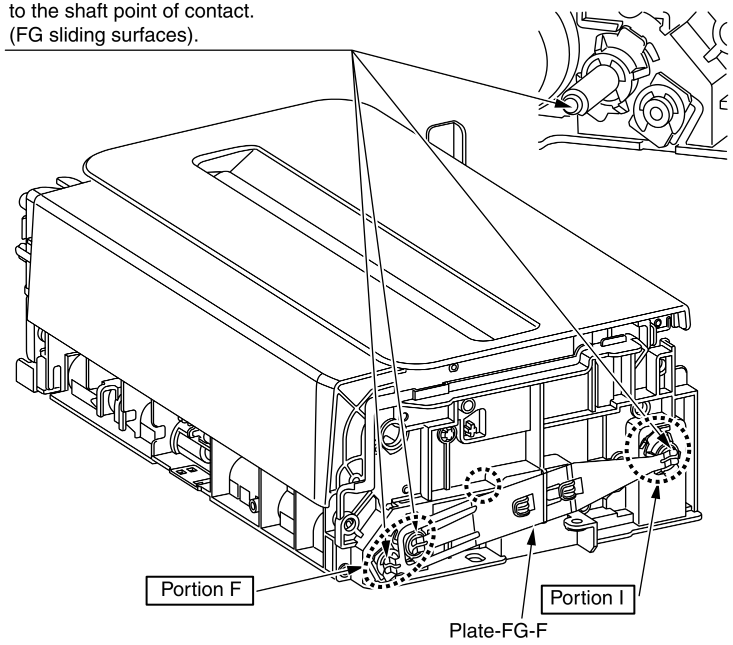
Gear-Planet

SF-133 Class C
Apply a normal amount of HANARL
(SF-133) to the hatched area.
(all circumference of post)

Leave it for about 3minutes (drying time) after painting HANARL SF-133, and then assemble the Gear-Idle-Assy.

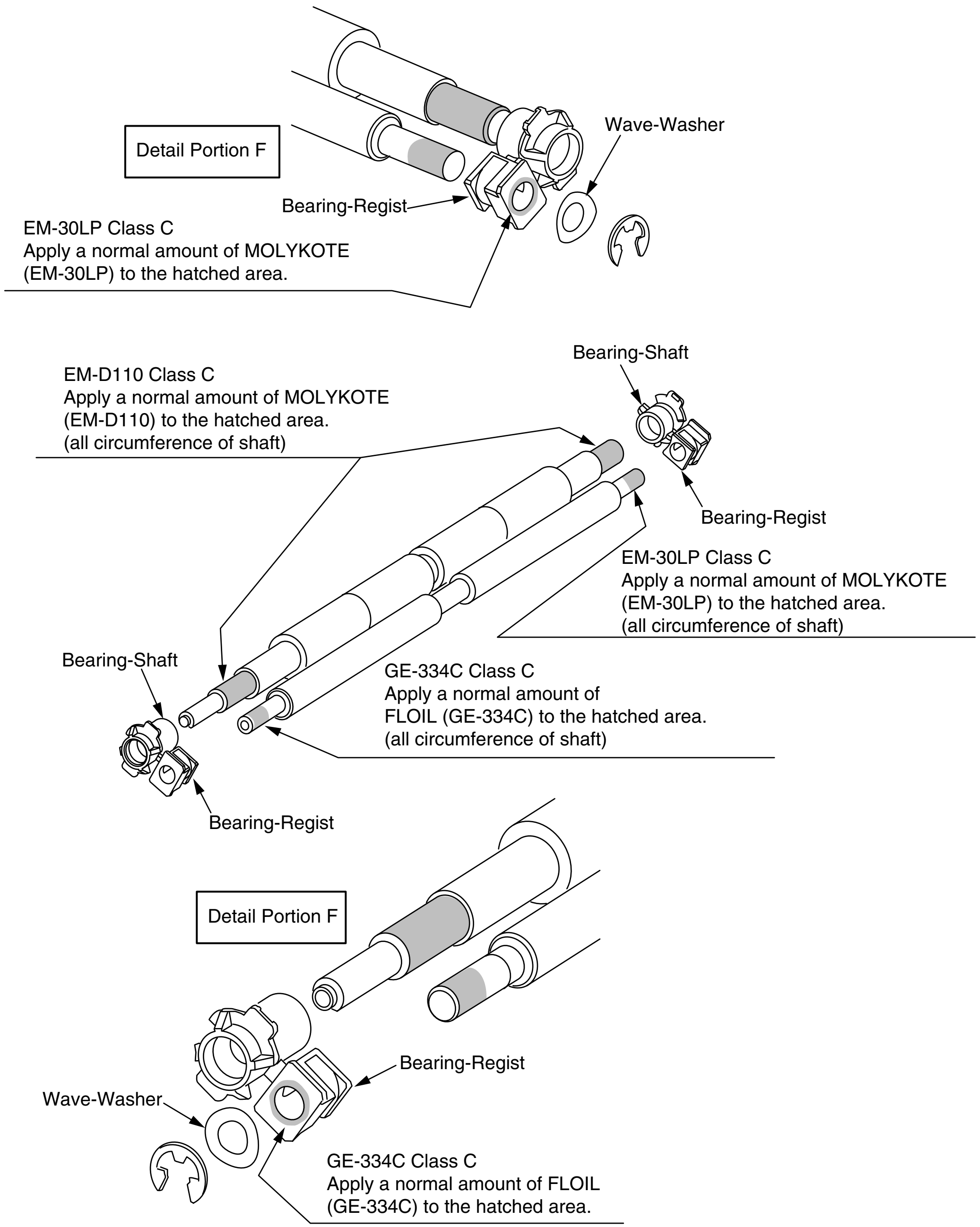
③-1 44529501PA ADF-Assy


Motor-Z20
Portion E
Portion D
Portion C
Portion B
Portion H
Portion A


GE-334 Class B
Apply a normal amount of FLOIL (GE-334C)
to the shaft point of contact.
(FG sliding surfaces).

Portion F
Portion I
Plate-FG-F

③-2 Portion A and F


Detail Portion F
Wave-Washer
Bearing-Regist
Bearing-Shaft
Bearing-Regist
Bearing-Shaft
Bearing-Regist
Detail Portion F
Bearing-Regist
Wave-Washer

EM-30LP Class C
Apply a normal amount of MOLYKOTE
(EM-30LP) to the hatched area.

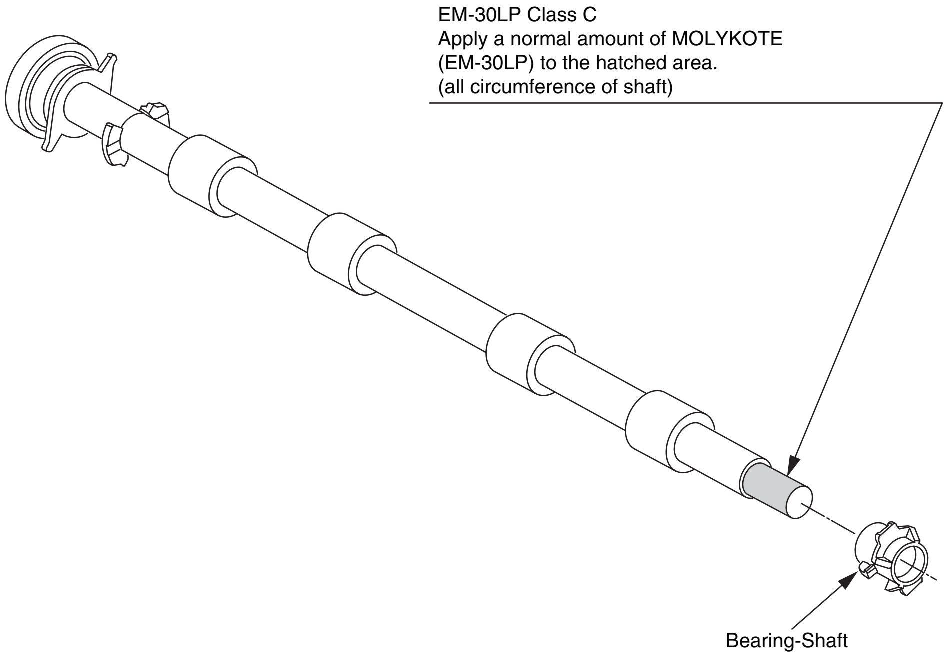
EM-D110 Class C
Apply a normal amount of MOLYKOTE
(EM-D110) to the hatched area.
(all circumference of shaft)

EM-30LP Class C
Apply a normal amount of MOLYKOTE
(EM-30LP) to the hatched area.
(all circumference of shaft)

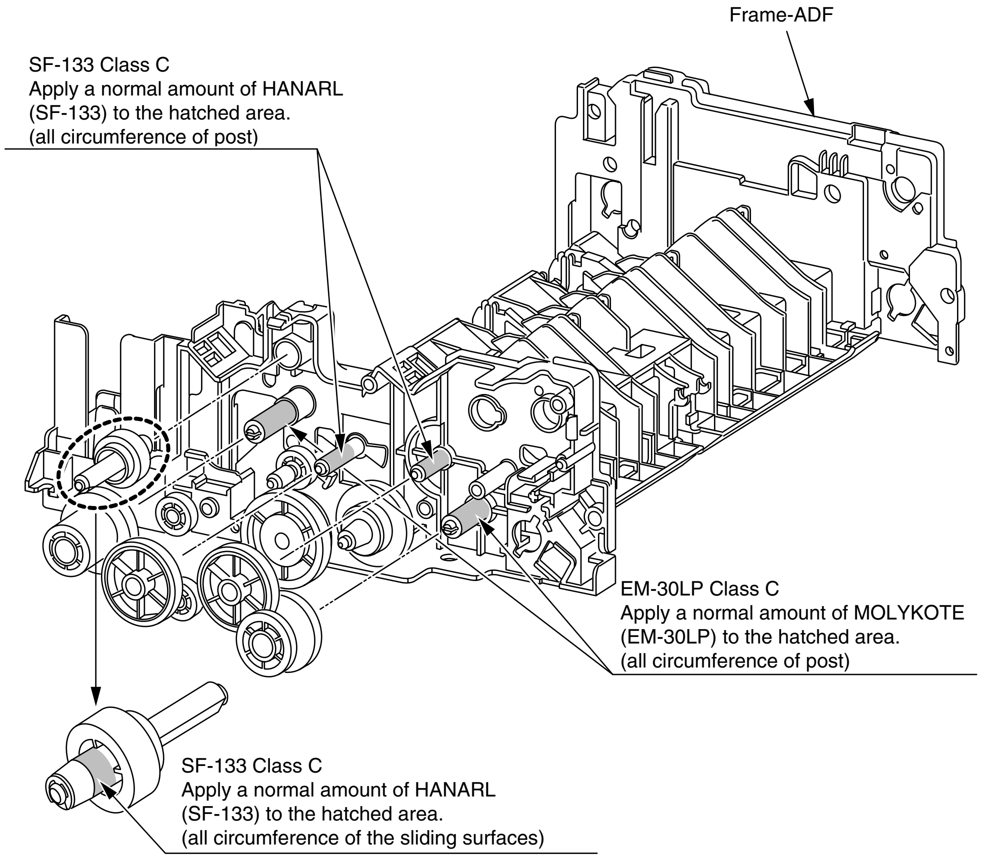
GE-334C Class C
Apply a normal amount of
FLOIL (GE-334C) to the hatched area.
(all circumference of shaft)

GE-334C Class C
Apply a normal amount of FLOIL
(GE-334C) to the hatched area.

③ -3 Portion I

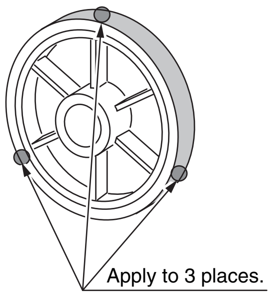

EM-30LP Class C
Apply a normal amount of MOLYKOTE
(EM-30LP) to the hatched area.
(all circumference of shaft)
Bearing-Shaft

③ -4 Portion B, C, D and E


Frame-ADF
SF-133 Class C
Apply a normal amount of HANARL
(SF-133) to the hatched area.
(all circumference of post)
EM-30LP Class C
Apply a normal amount of MOLYKOTE
(EM-30LP) to the hatched area.
(all circumference of post)
SF-133 Class C
Apply a normal amount of HANARL
(SF-133) to the hatched area.
(all circumference of the sliding surfaces)

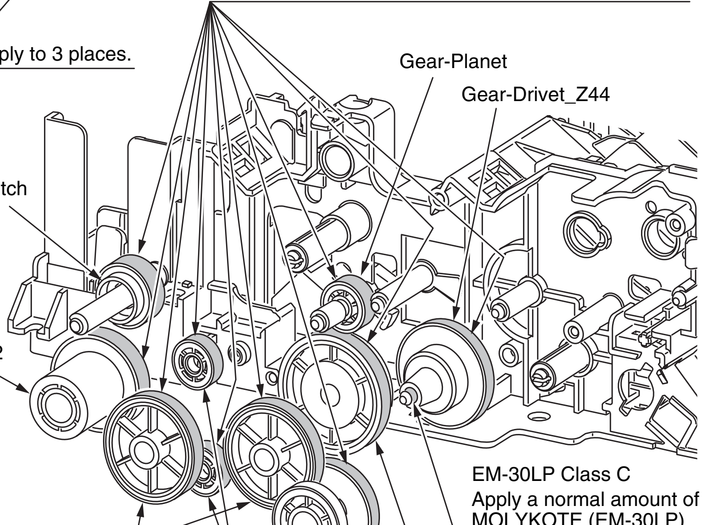
Leave it for about 3minutes (drying time) after painting HANARL SF-133, and then assemble the ADF-Assy.

For detail

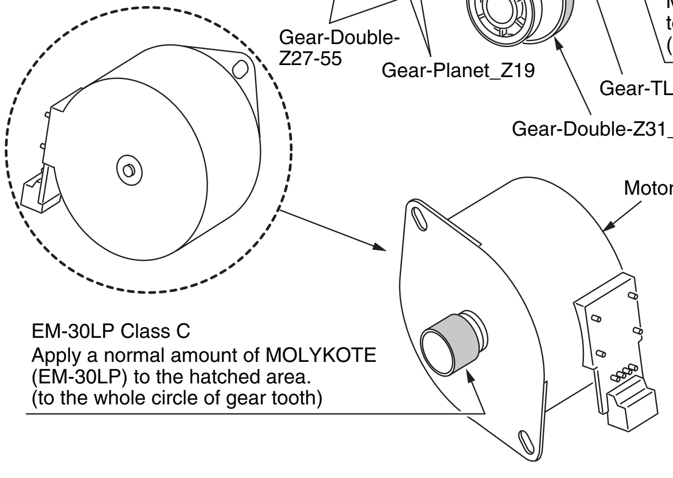


Apply to 3 places.

EM-30LP Class C x 3
Apply a normal amount of MOLYKOTE to the hatched area. (to 3 places on the gear tooth circle)
(Refer to detail)

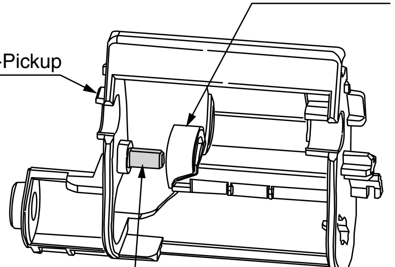

Gear-Planet
Gear-Drivet_Z44
Gear-Clutch
Gear-Double-Z26-42
Gear-Double-
Z27-55
Gear-Planet_Z19
Gear-TL-Sep_Z43-55
Gear-Double-Z31_44

EM-30LP Class C
Apply a normal amount of MOLYKOTE (EM-30LP) to the hatched area.
(all circumference)

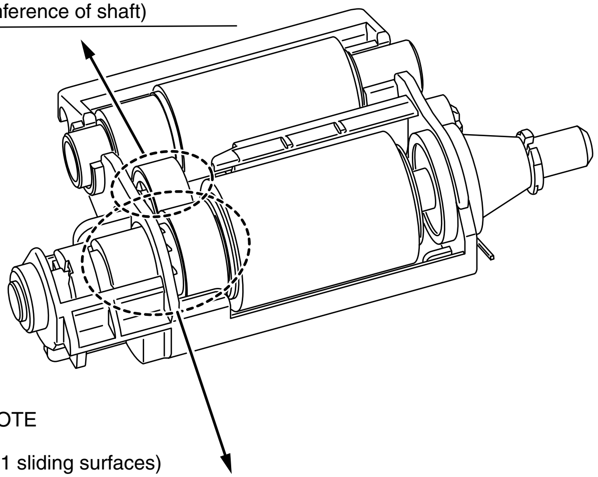


EM-30LP Class C
Apply a normal amount of MOLYKOTE (EM-30LP) to the hatched area.
(to the whole circle of gear tooth)

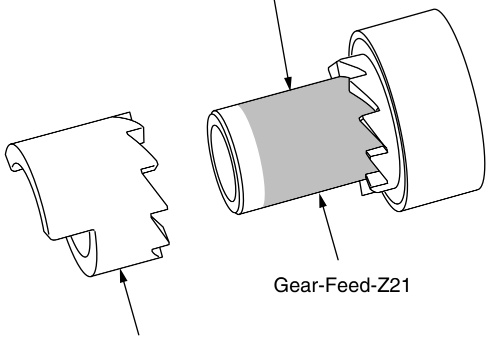
④ 44531101PA Frame-Assy-Hopping-ADF


Gear-Planet
Fram e-Pickup

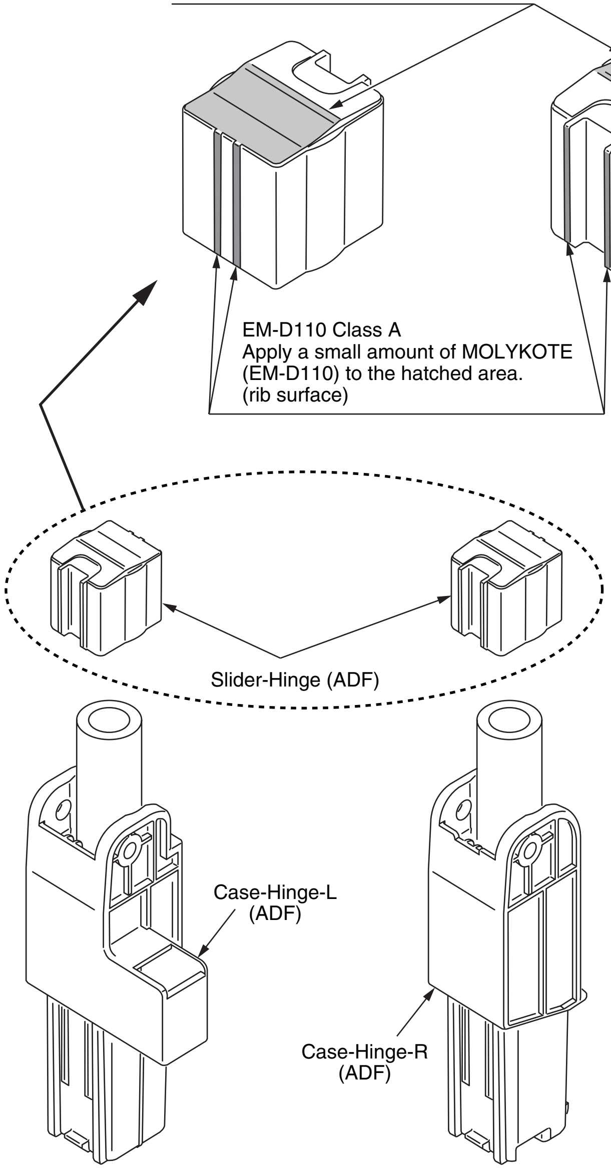
EM-30LP Class B
Apply a normal amount of MOLYKOTE (EM-30LP)to the hatched area.
(All circumference of shaft)



EM-D110 Class B
Apply a normal amount of MOLYKOTE (EM-D110) to the hatched area.
(Boss-Coupling and Gear-Feed-Z21 sliding surfaces)


Gear-Feed-Z21
Boss-Coupling

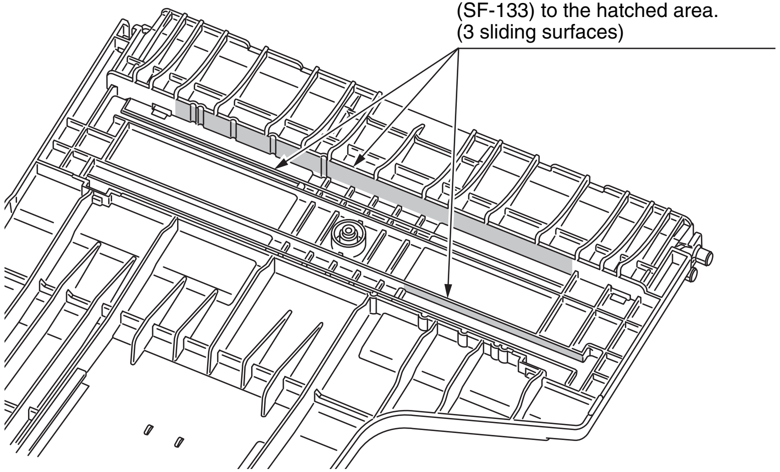
⑤ 44539301PA Hinge-Assy-L (ADF)
44539901PA Hinge-Assy-R (ADF)



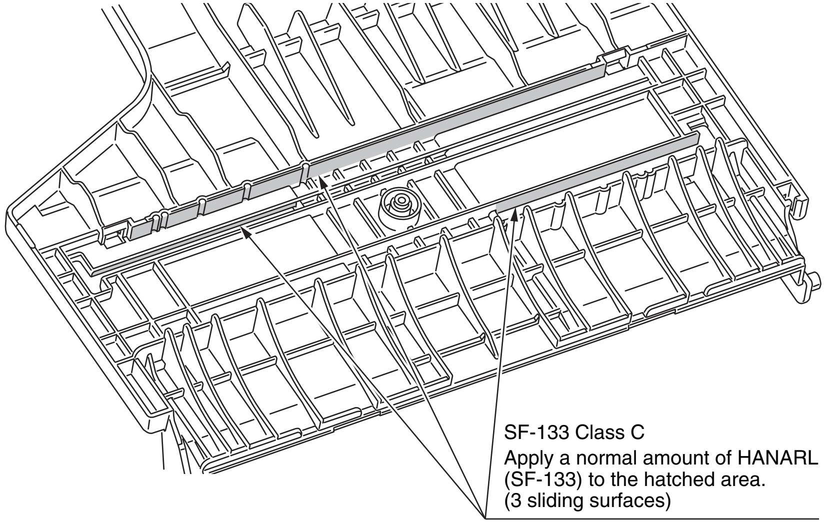
EM-D110 Class C
Apply a normal amount of MOLYKOTE
(EM-D110) to the hatched area.

EM-D110 Class A
Apply a small amount of MOLYKOTE
(EM-D110) to the hatched area.
(rib surface)

⑥ 44538701PA Tray-Assy-Document 44538801_Tray-Document



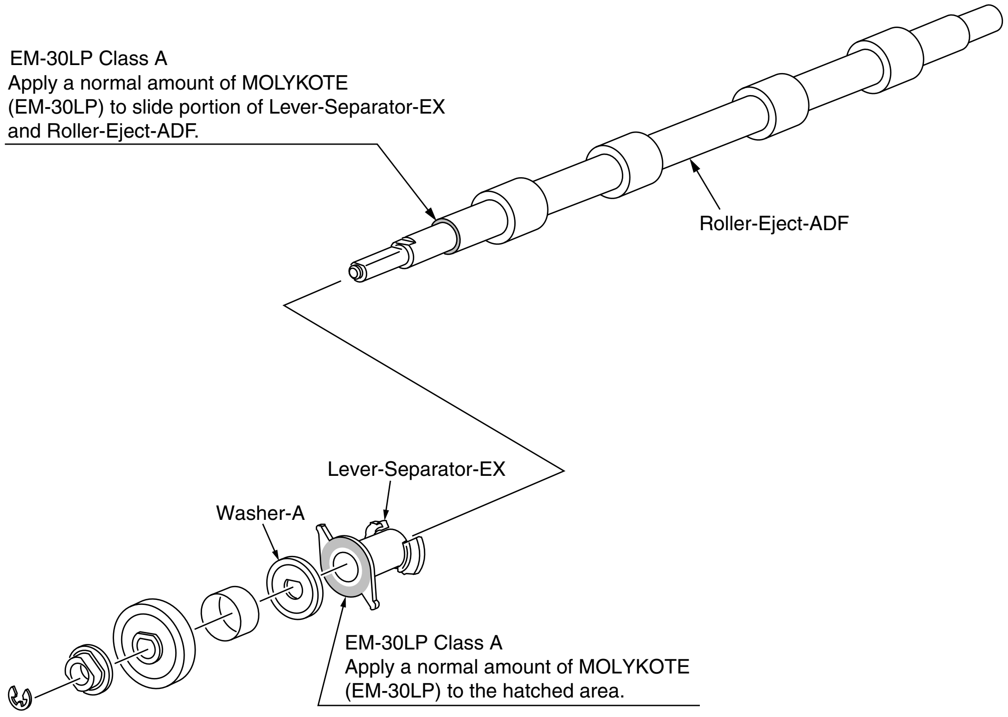
SF-133 Class C
Apply a normal amount of HANARL
(SF-133) to the hatched area.
(3 sliding surfaces)



SF-133 Class C
Apply a normal amount of HANARL
(SF-133) to the hatched area.
(3 sliding surfaces)

※ Leave it for about 3minutes (drying time) after painting HANARL SF-133, and then assemble the Tray-Assy-Document.

⑦ 44534901PA Roller-Assy-Eject-ADF

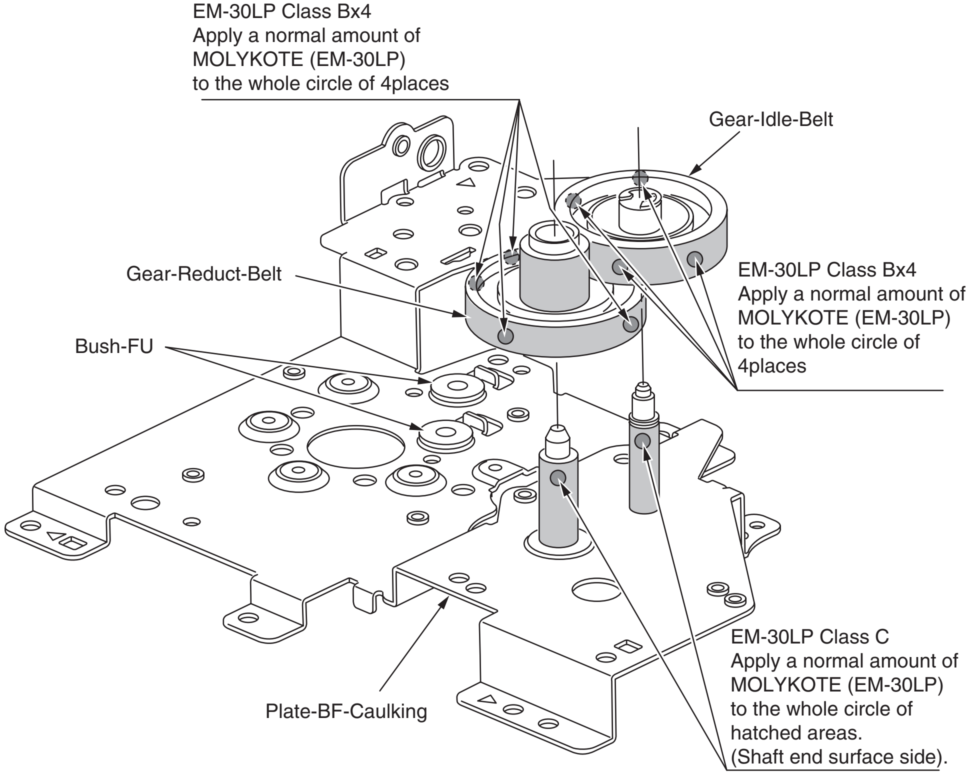

EM-30LP Class A
Apply a normal amount of MOLYKOTE (EM-30LP) to slide portion of Lever-Separator-EX and Roller-Eject-ADF.

Roller-Eject-ADF
Lever-Separator-EX
Washer-A

EM-30LP Class A
Apply a normal amount of MOLYKOTE (EM-30LP) to the hatched area.

4.3.2 Printer

① -1 44452301PA Side-R Assy.



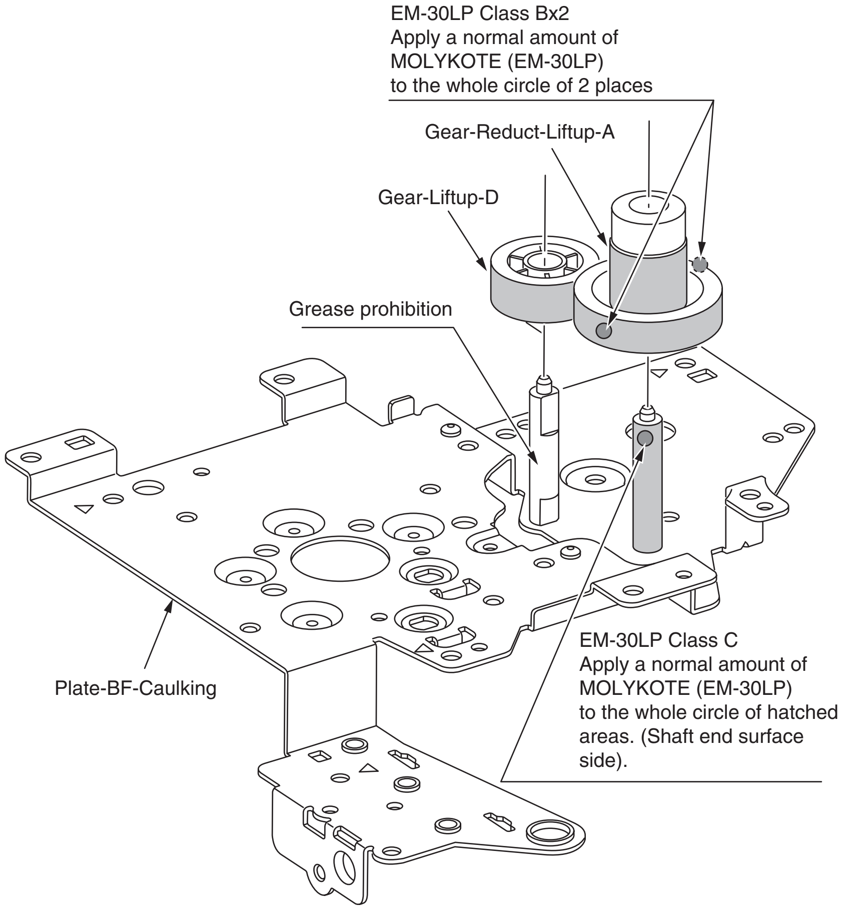
EM-30LP Class Bx4
Apply a normal amount of
MOLYKOTE (EM-30LP)
to the whole circle of 4places

EM-30LP Class Bx4
Apply a normal amount of
MOLYKOTE (EM-30LP)
to the whole circle of
4places

EM-30LP Class C
Apply a normal amount of
MOLYKOTE (EM-30LP)
to the whole circle of
hatched areas.
(Shaft end surface side).

Gear-Idle-Belt
Gear-Reduct-Belt
Bush-FU
Plate-BF-Caulking

① -2 44452301PA Side-R Assy.

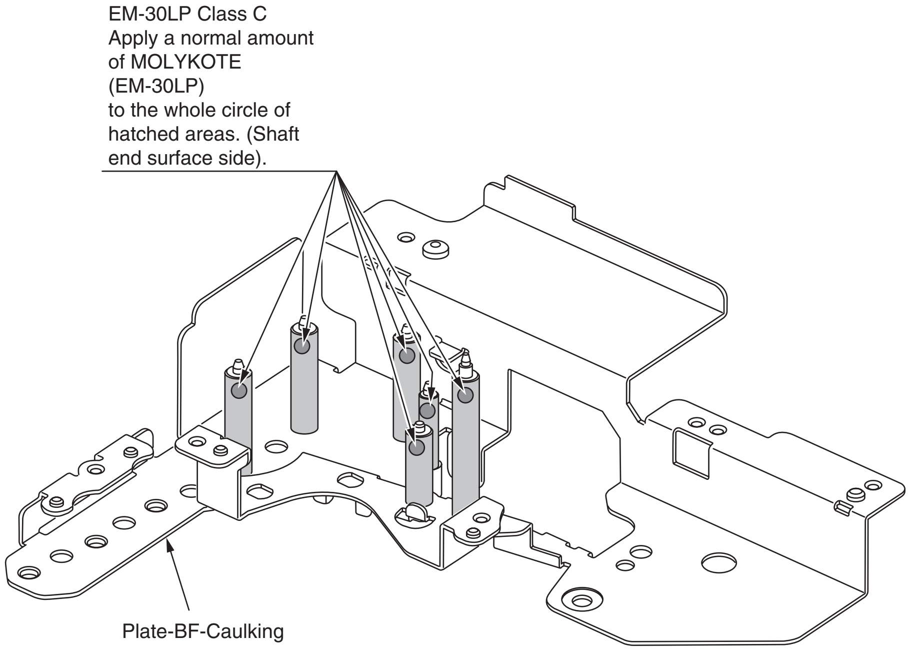


EM-30LP Class Bx2
Apply a normal amount of
MOLYKOTE (EM-30LP)
to the whole circle of 2 places

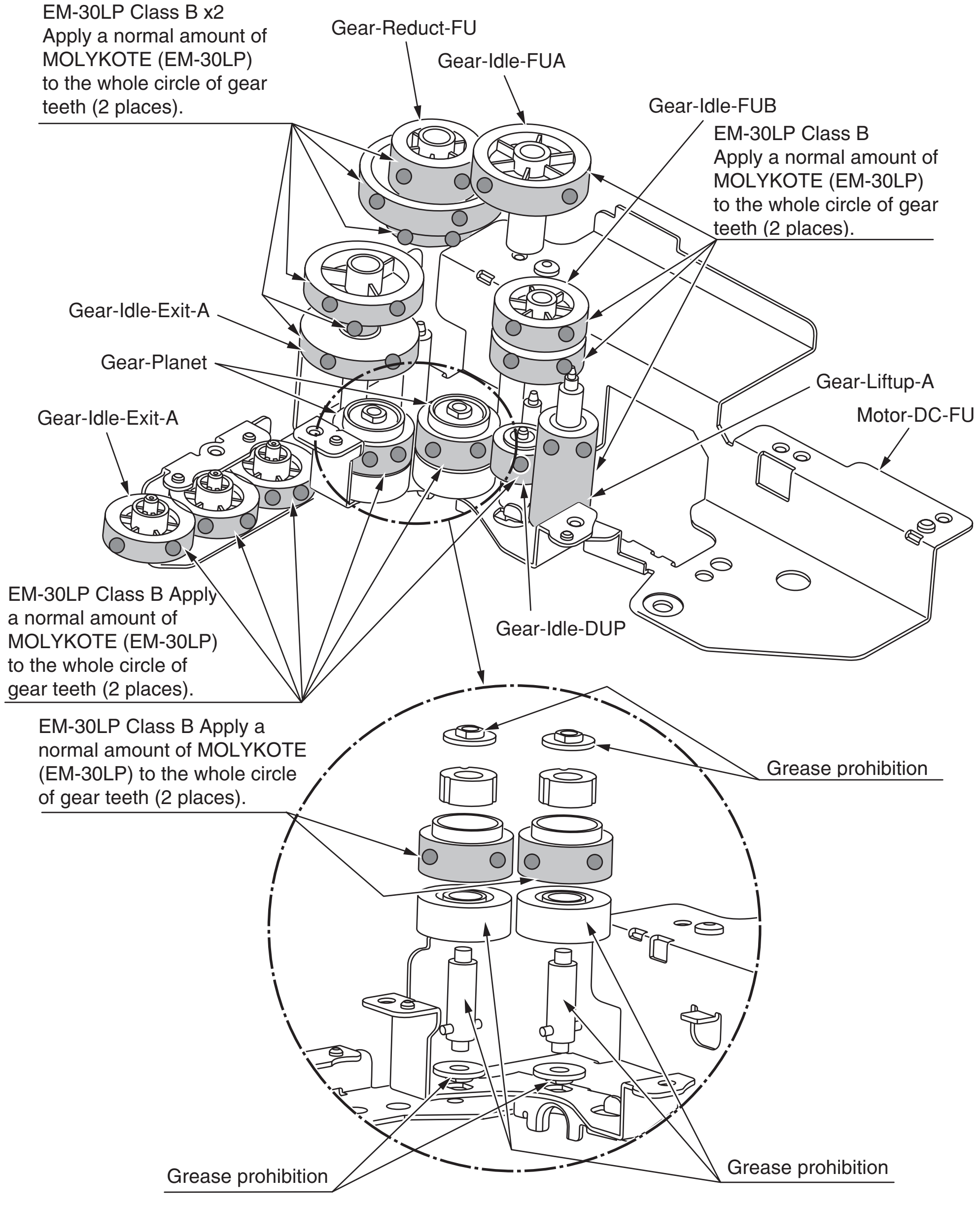
EM-30LP Class C
Apply a normal amount of
MOLYKOTE (EM-30LP)
to the whole circle of hatched
areas. (Shaft end surface
side).

Gear-Reduct-Liftup-A
Gear-Liftup-D
Grease prohibition
Plate-BF-Caulking

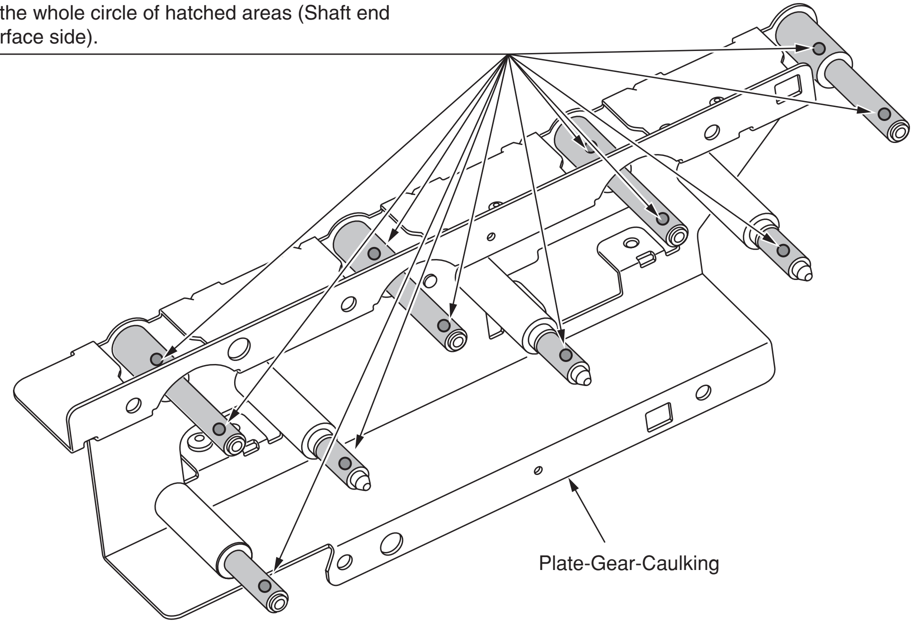
① -3 44452301PA Side-R Assy.


EM-30LP Class C
Apply a normal amount of MOLYKOTE (EM-30LP) to the whole circle of hatched areas. (Shaft end surface side).
Plate-BF-Caulking

① -4 44452301PA Side-R Assy.

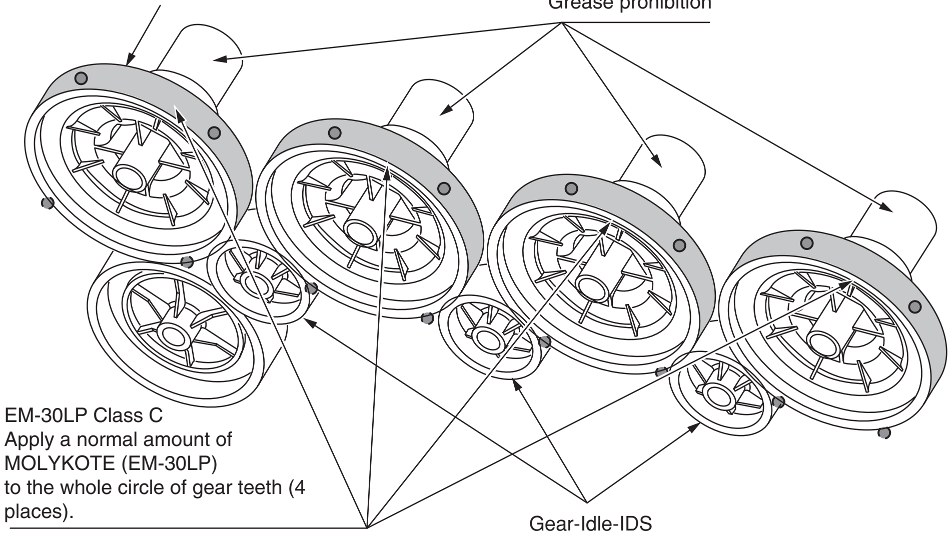

EM-30LP Class B x2
Apply a normal amount of MOLYKOTE (EM-30LP) to the whole circle of gear teeth (2 places).
Gear-Reduct-FU
Gear-Idle-FUA
Gear-Idle-FUB
EM-30LP Class B
Apply a normal amount of MOLYKOTE (EM-30LP) to the whole circle of gear teeth (2 places).
Gear-Idle-Exit-A
Gear-Planet
Gear-Liftup-A
Motor-DC-FU
Gear-Idle-Exit-A
EM-30LP Class B Apply a normal amount of MOLYKOTE (EM-30LP) to the whole circle of gear teeth (2 places).
Gear-Idle-DUP
EM-30LP Class B Apply a normal amount of MOLYKOTE (EM-30LP) to the whole circle of gear teeth (2 places).
Grease prohibition
Grease prohibition
Grease prohibition

① -5 44452301PA Side-R Assy.



EM-30LP Class C
Apply a normal amount of MOLYKOTE (EM-30LP) to the whole circle of hatched areas (Shaft end eurface side).

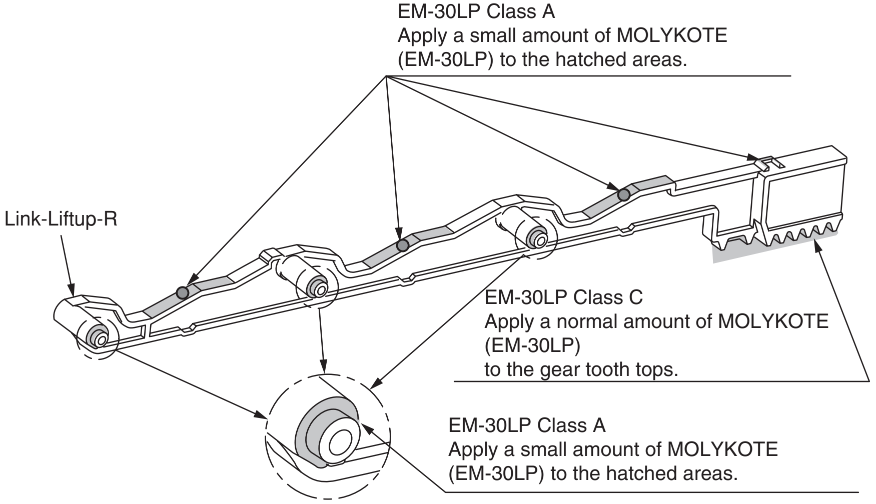
Plate-Gear-Caulking



Gear-Reduct-ID
Grease prohibition
Gear-Idle-IDS

EM-30LP Class C
Apply a normal amount of MOLYKOTE (EM-30LP)
to the whole circle of gear teeth (4 places).

① -6 44452301PA Side-R Assy.

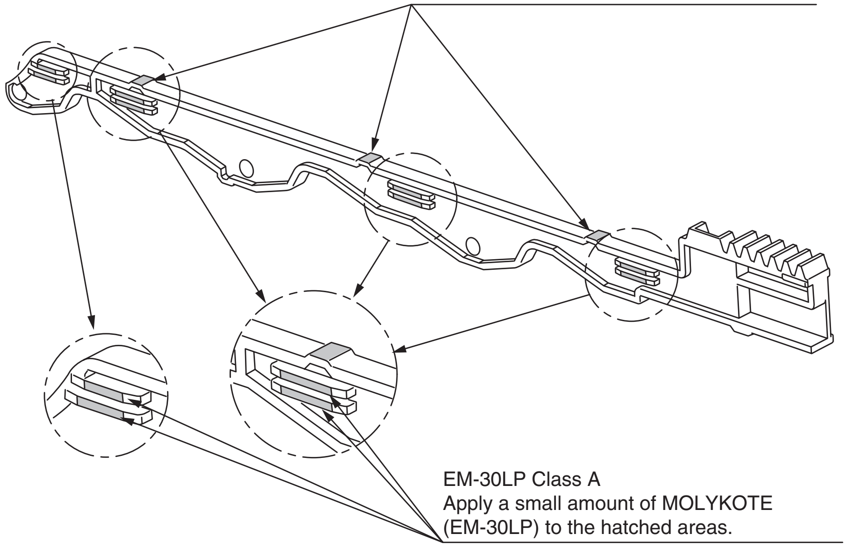


Link-Liftup-R

EM-30LP Class A
Apply a small amount of MOLYKOTE (EM-30LP) to the hatched areas.

EM-30LP Class C
Apply a normal amount of MOLYKOTE (EM-30LP)
to the gear tooth tops.

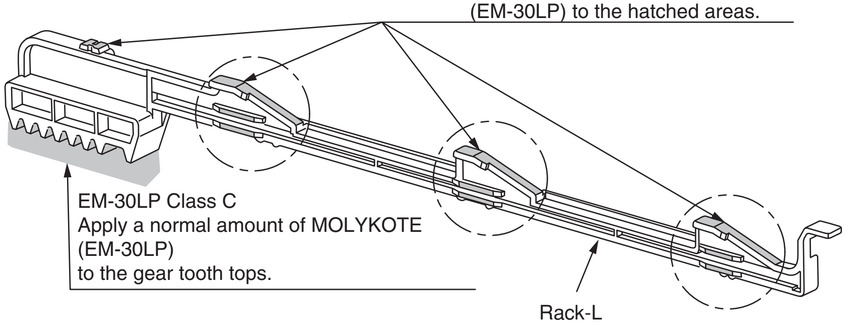
EM-30LP Class A
Apply a small amount of MOLYKOTE (EM-30LP) to the hatched areas.



EM-30LP Class A
Apply a small amount of MOLYKOTE (EM-30LP) to the hatched areas.

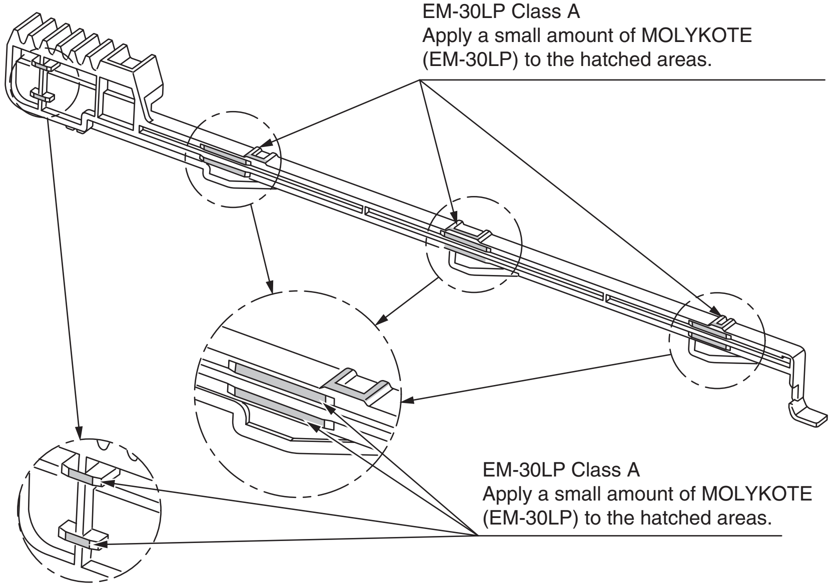
EM-30LP Class A
Apply a small amount of MOLYKOTE (EM-30LP) to the hatched areas.

② 44452401PA Side-L Assy.



EM-30LP Class A
Apply a small amount of MOLYKOTE (EM-30LP) to the hatched areas.

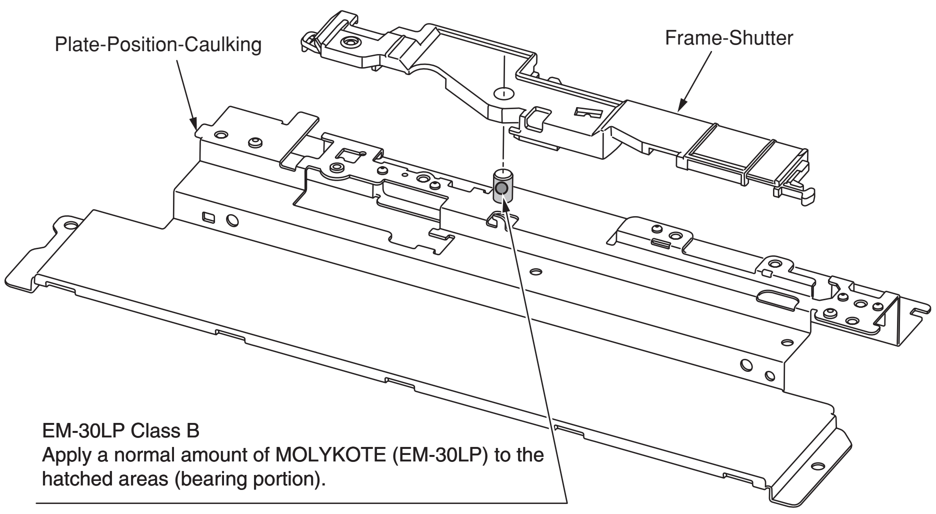
EM-30LP Class C
Apply a normal amount of MOLYKOTE (EM-30LP)
to the gear tooth tops.



EM-30LP Class A
Apply a small amount of MOLYKOTE (EM-30LP) to the hatched areas.

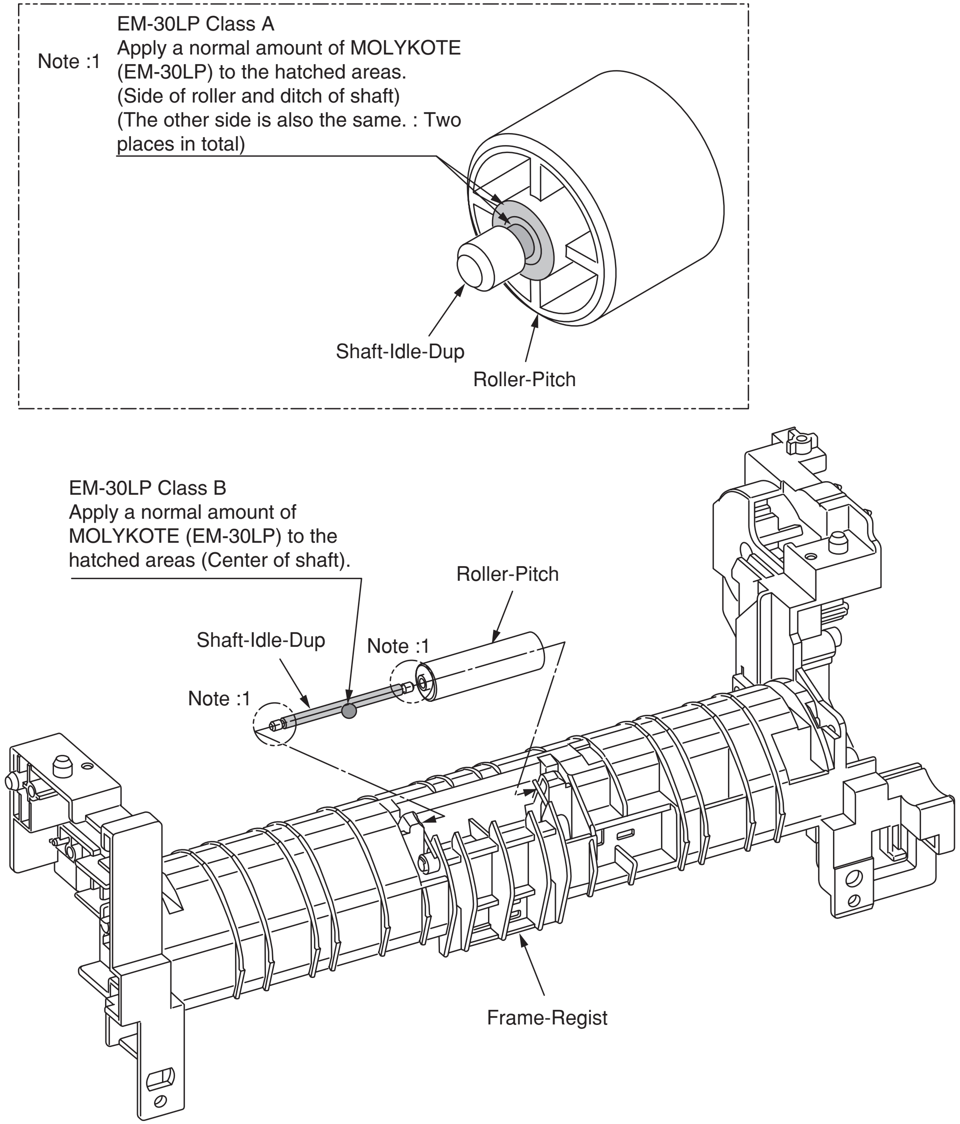
EM-30LP Class A
Apply a small amount of MOLYKOTE (EM-30LP) to the hatched areas.

③ 44452601PA Sensor Assy.-Regist



EM-30LP Class B
Apply a normal amount of MOLYKOTE (EM-30LP) to the hatched areas (bearing portion).

④ -1 44452701PA Front Assy.-Reg/Hop

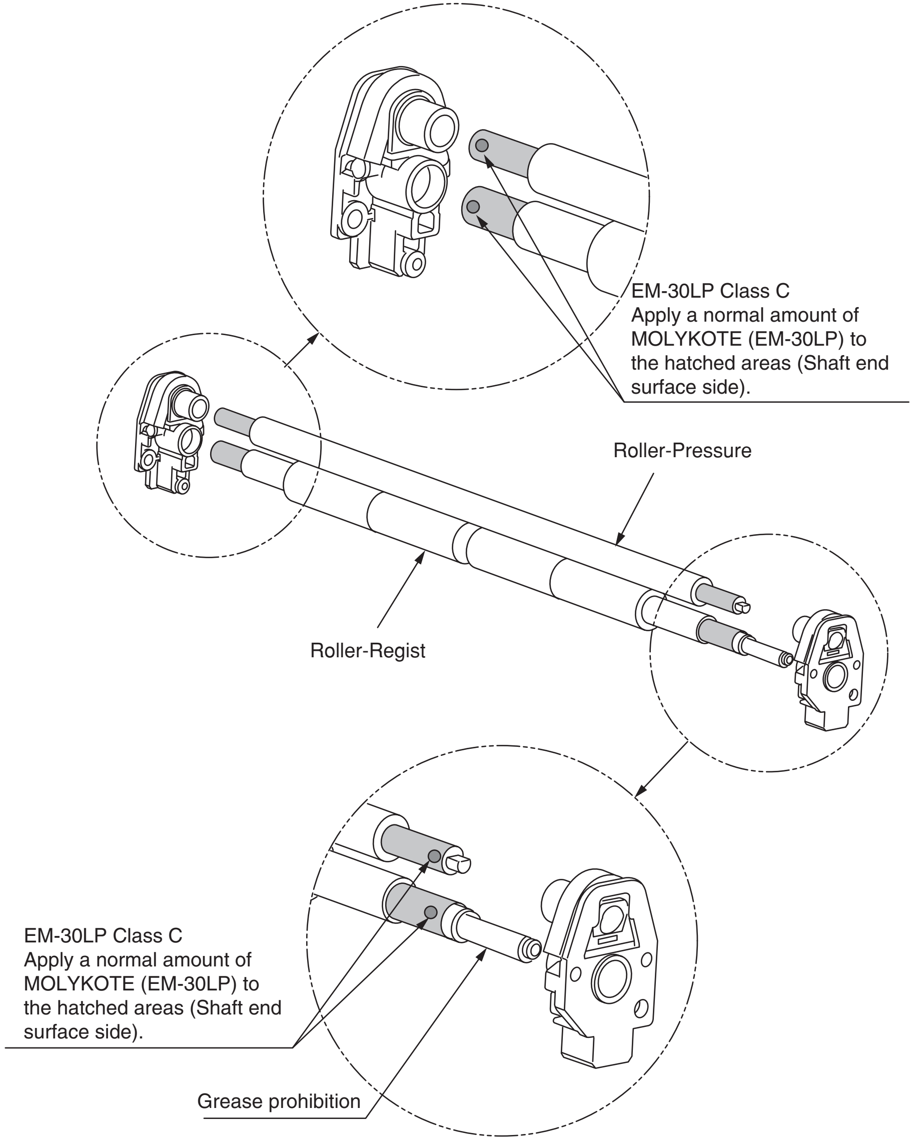


Note :1 EM-30LP Class A
Apply a normal amount of MOLYKOTE (EM-30LP) to the hatched areas.
(Side of roller and ditch of shaft)
(The other side is also the same. : Two places in total)

EM-30LP Class B
Apply a normal amount of MOLYKOTE (EM-30LP) to the hatched areas (Center of shaft).

Shaft-Idle-Dup
Roller-Pitch
Roller-Pitch
Shaft-Idle-Dup
Note :1
Note :1
Frame-Regist

④ -2 44452701PA Front Assy.-Reg/Hop

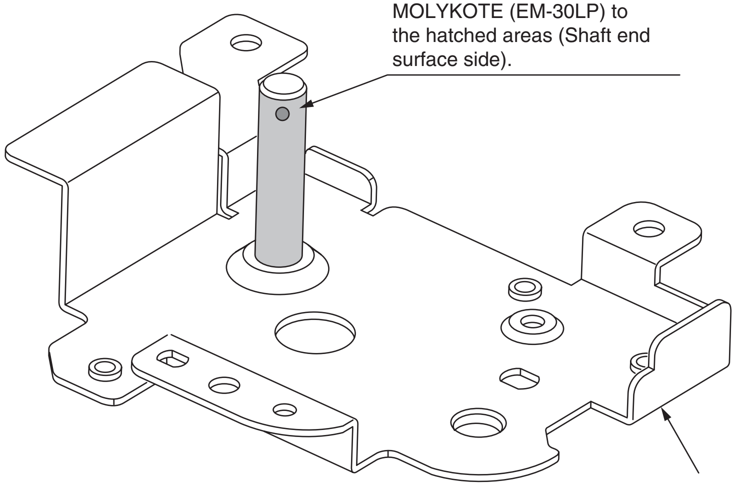


EM-30LP Class C
Apply a normal amount of MOLYKOTE (EM-30LP) to the hatched areas (Shaft end surface side).

EM-30LP Class C
Apply a normal amount of MOLYKOTE (EM-30LP) to the hatched areas (Shaft end surface side).

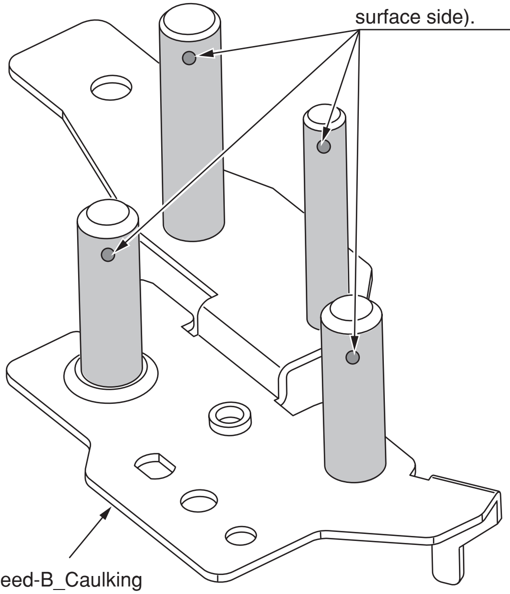
Roller-Pressure
Roller-Regist
Grease prohibition

④ -3 44452701PA Front Assy.-Reg/Hop



EM-30LP Class C
Apply a normal amount of
MOLYKOTE (EM-30LP) to
the hatched areas (Shaft end
surface side).

Plate-Feed-A_Caulking



EM-30LP Class C
Apply a normal amount of
MOLYKOTE (EM-30LP) to
the hatched areas (Shaft end
surface side).

Plate-Feed-B_Caulking

④ -4 44452701PA Front Assy.-Reg/Hop

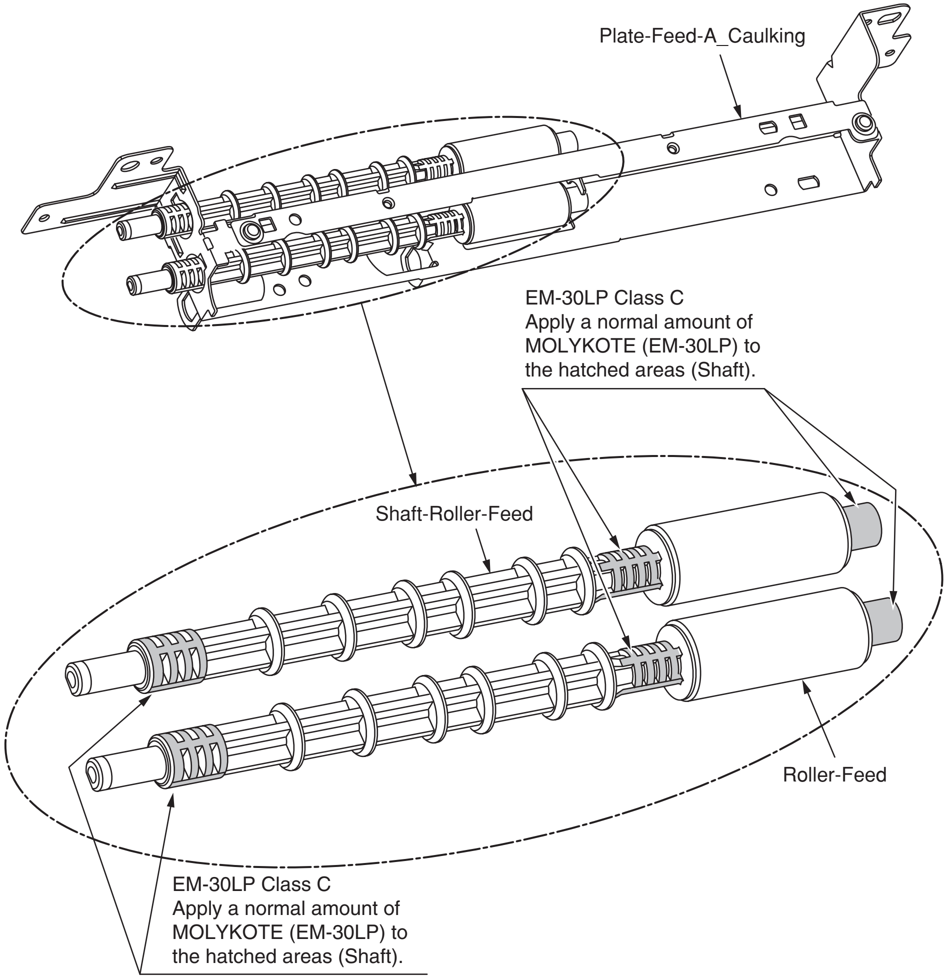


Plate-Feed-A_Caulking

EM-30LP Class C
Apply a normal amount of
MOLYKOTE (EM-30LP) to
the hatched areas (Shaft).

Shaft-Roller-Feed

Roller-Feed

EM-30LP Class C
Apply a normal amount of
MOLYKOTE (EM-30LP) to
the hatched areas (Shaft).

④ -5 44452701PA Front Assy.-Reg/Hop

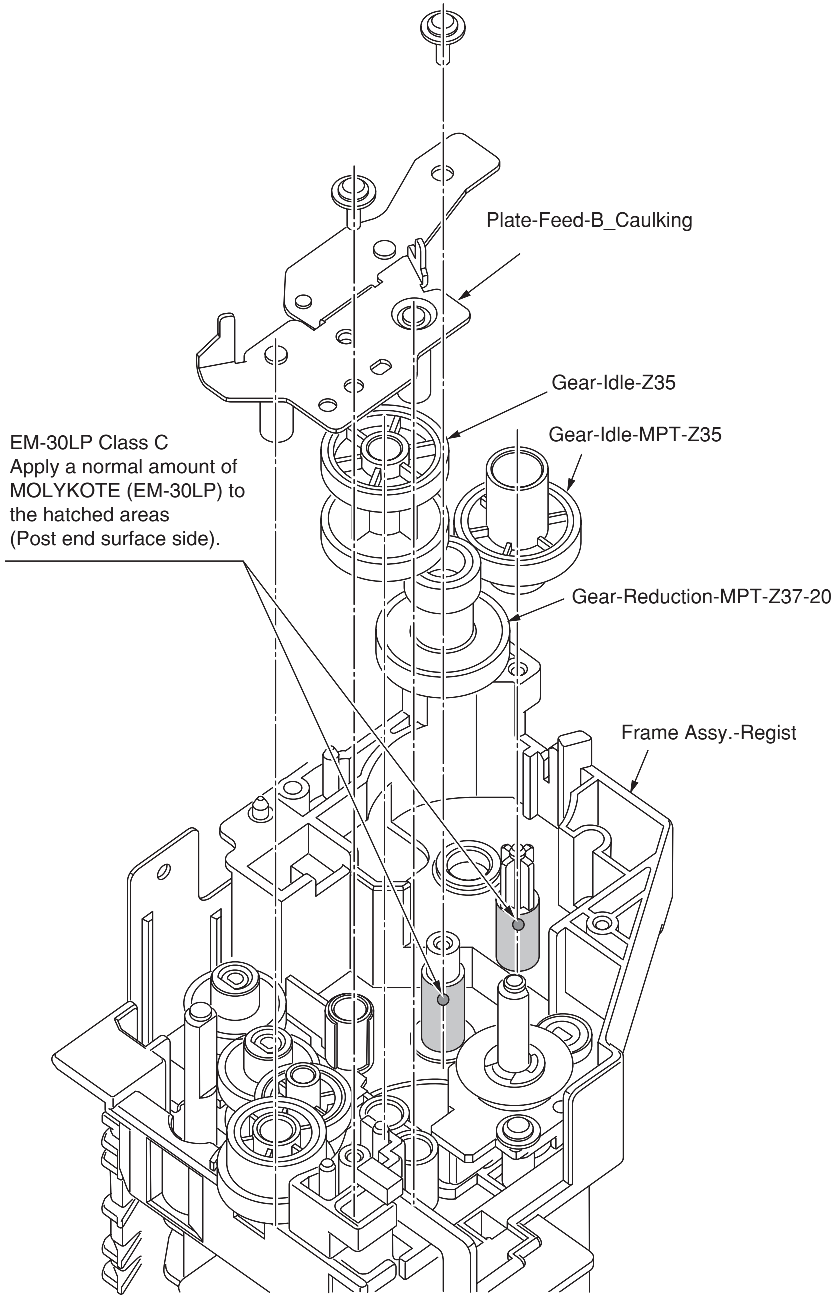
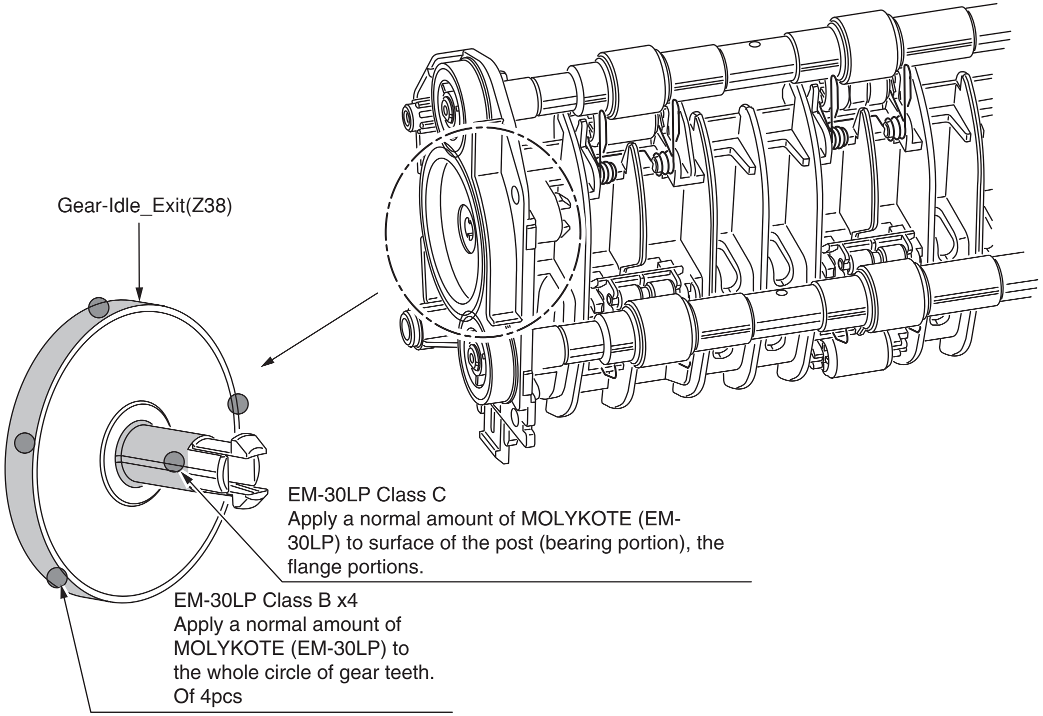


Plate-Feed-B_Caulking
Gear-Idle-Z35
Gear-Idle-MPT-Z35
Gear-Reduction-MPT-Z37-20
Frame Assy.-Regist

EM-30LP Class C
Apply a normal amount of
MOLYKOTE (EM-30LP) to
the hatched areas
(Post end surface side).

⑤ 44364101PA Eject Assy


Gear-Idle_Exit(Z38)

EM-30LP Class C
Apply a normal amount of MOLYKOTE (EM-30LP) to surface of the post (bearing portion), the flange portions.

EM-30LP Class B x4
Apply a normal amount of
MOLYKOTE (EM-30LP) to
the whole circle of gear teeth.
Of 4pcs

⑥ -1 44453001PA Printer Unit-PX750

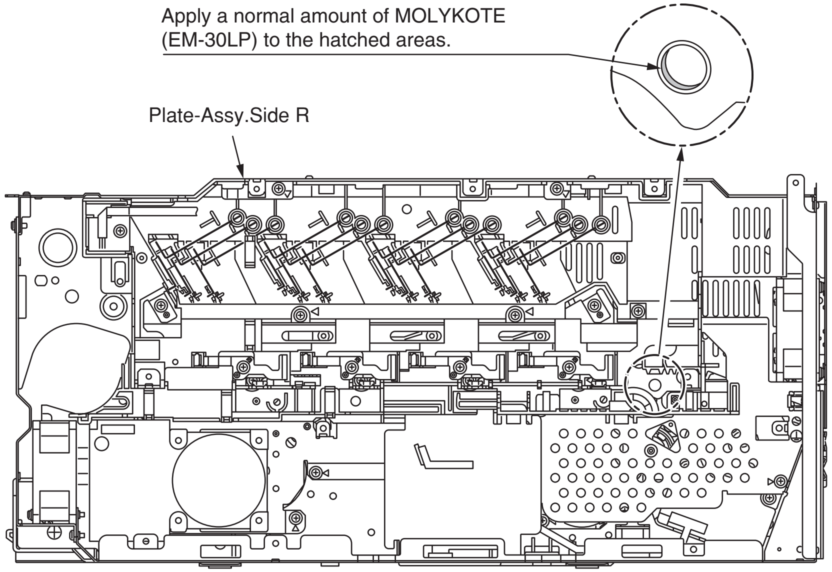


Plate-Assy.Side R

EM-30LP Class C
Apply a normal amount of MOLYKOTE
(EM-30LP) to the hatched areas.

⑥ -2 44453001PA Printer Unit-PX750

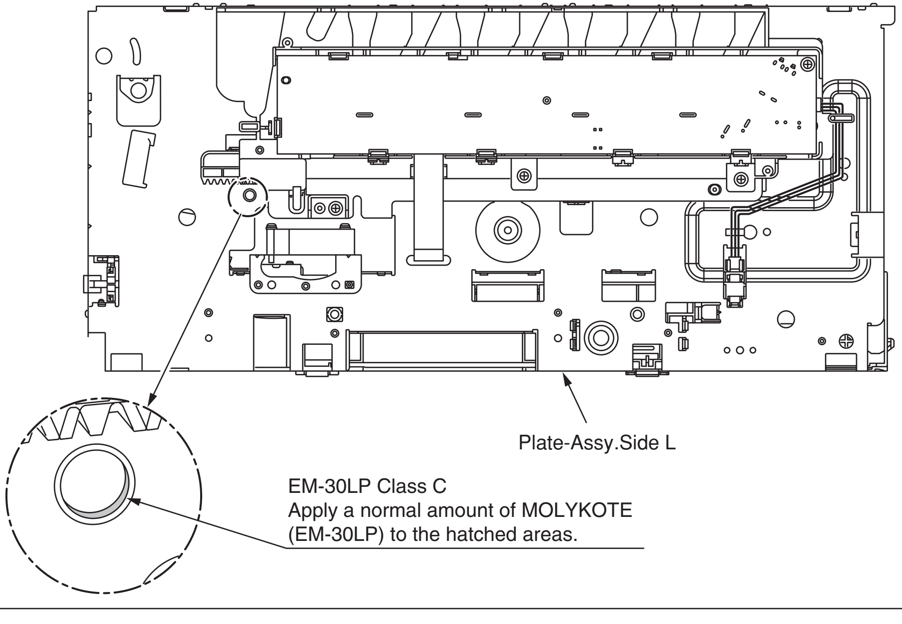
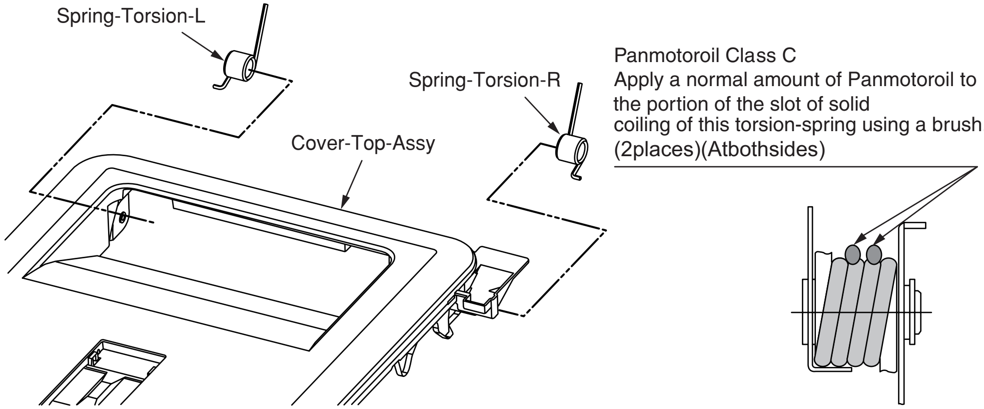


Plate-Assy.Side L

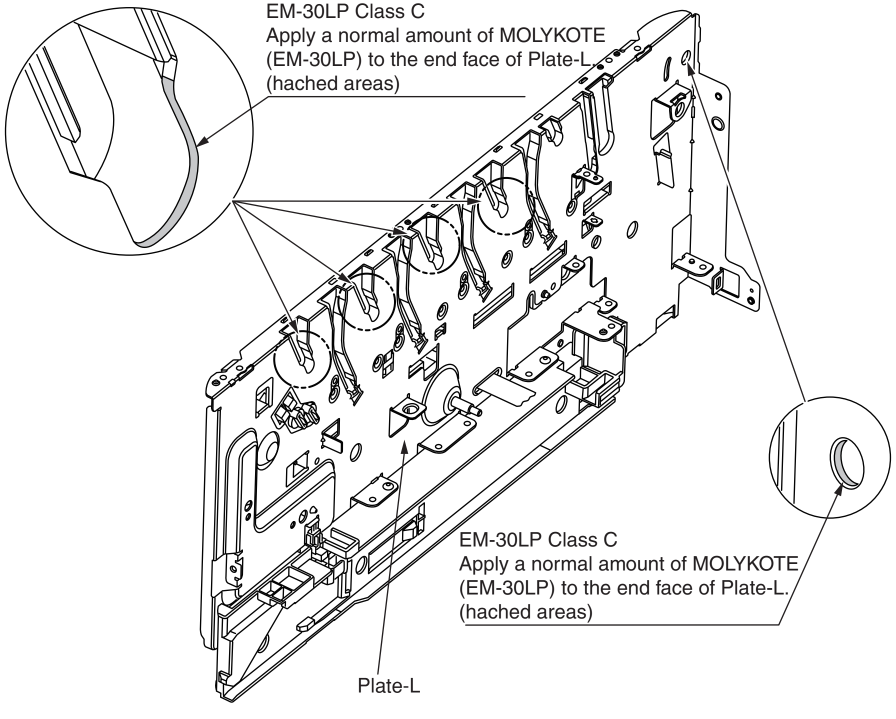
EM-30LP Class C
Apply a normal amount of MOLYKOTE
(EM-30LP) to the hatched areas.

⑥ -3 44453001PA Printer Unit-PX750


Spring-Torsion-L
Spring-Torsion-R
Cover-Top-Assy

Panmotoroil Class C
Apply a normal amount of Panmotoroil to
the portion of the slot of solid
coiling of this torsion-spring using a brush.
(2places)(Atbothsides)

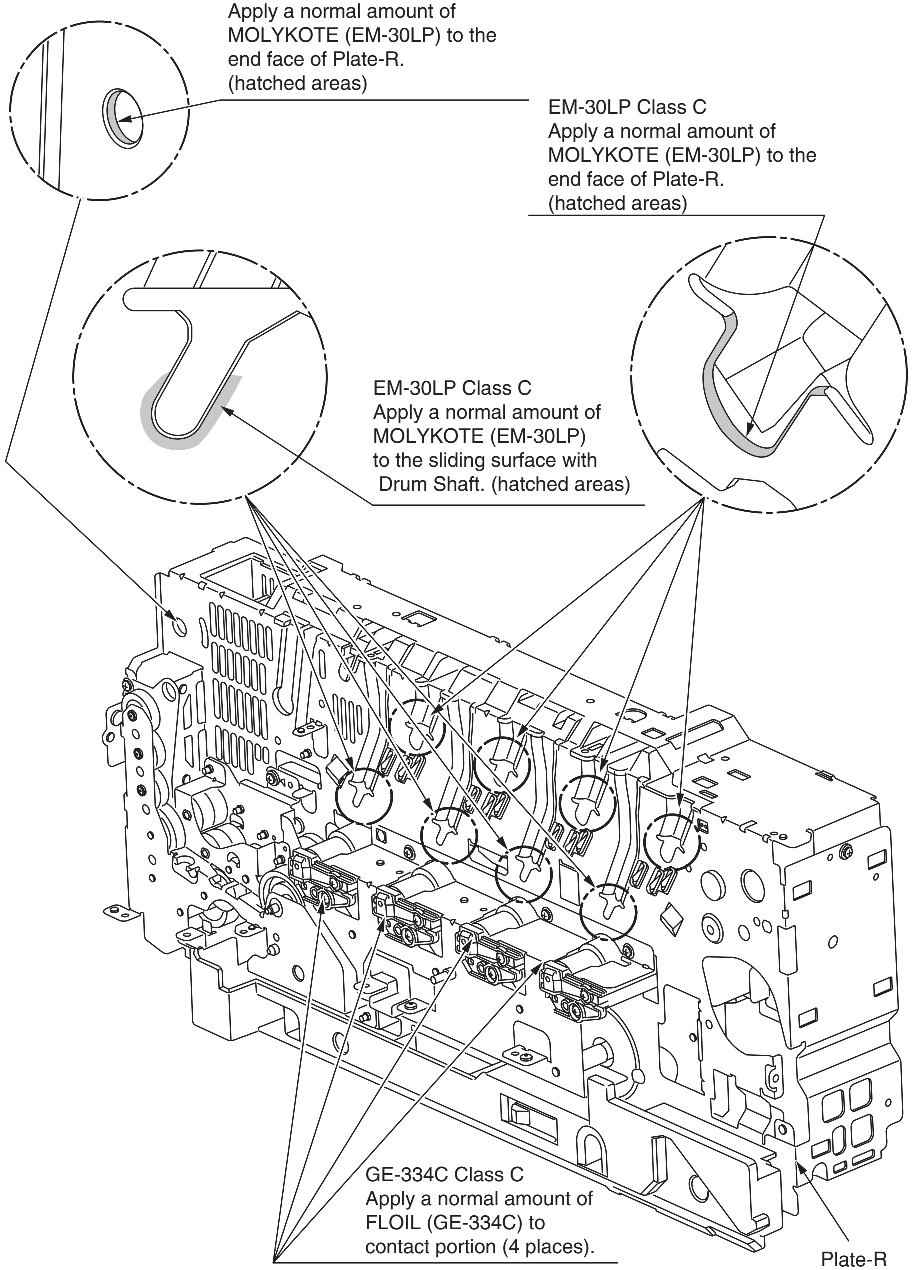
⑥ -4 44453001PA Printer Unit-PX750



EM-30LP Class C
Apply a normal amount of MOLYKOTE
(EM-30LP) to the end face of Plate-L.
(hached areas)

EM-30LP Class C
Apply a normal amount of MOLYKOTE
(EM-30LP) to the end face of Plate-L.
(hached areas)

⑥ -5 44453001PA Printer Unit-PX750



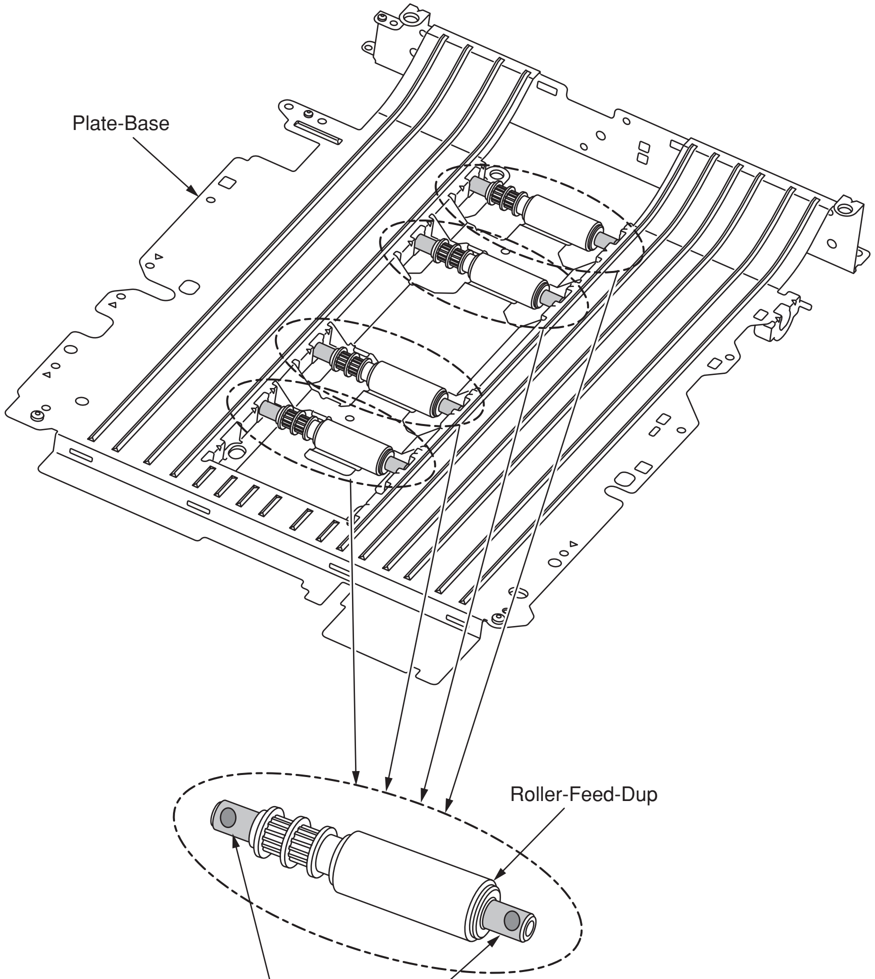
EM-30LP Class C
Apply a normal amount of
MOLYKOTE (EM-30LP) to the
end face of Plate-R.
(hatched areas)

EM-30LP Class C
Apply a normal amount of
MOLYKOTE (EM-30LP) to the
end face of Plate-R.
(hatched areas)

EM-30LP Class C
Apply a normal amount of
MOLYKOTE (EM-30LP)
to the sliding surface with
Drum Shaft. (hatched areas)

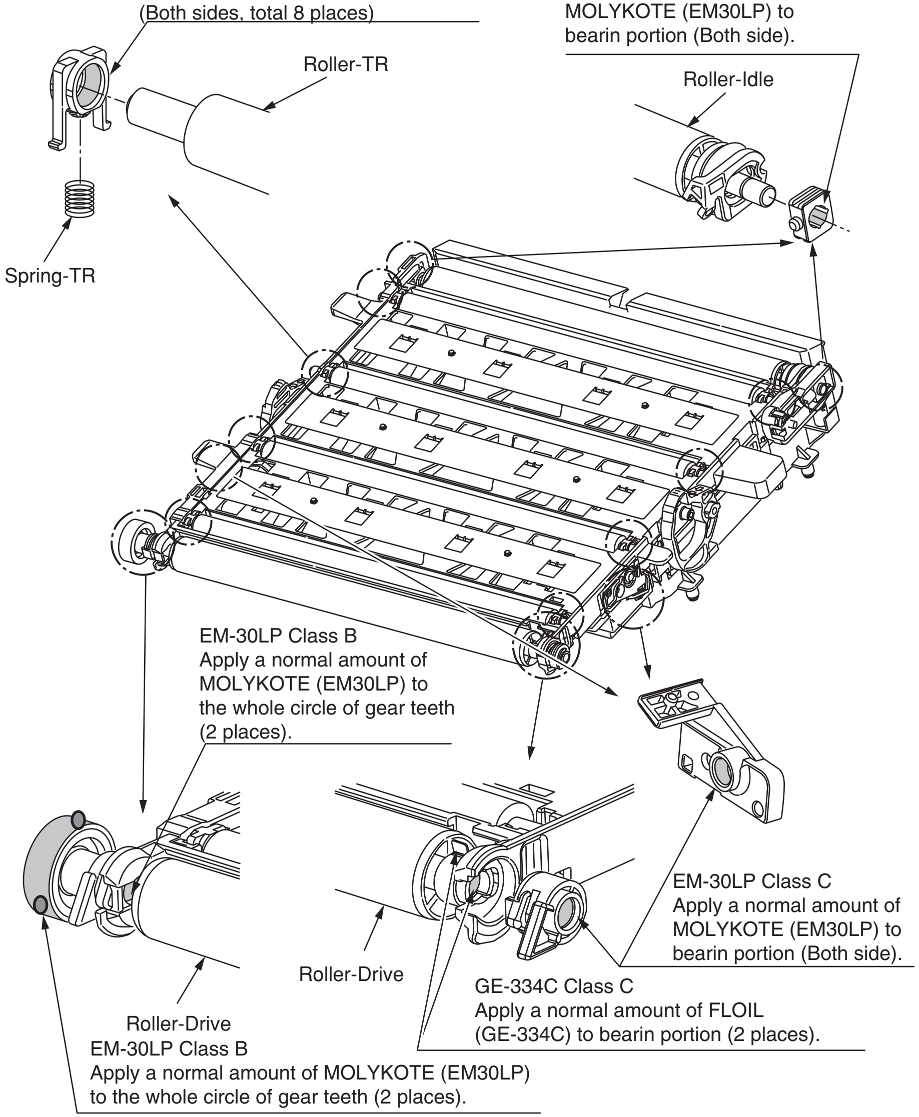
GE-334C Class C
Apply a normal amount of
FLOIL (GE-334C) to
contact portion (4 places).

⑦ 44452501PA Base-Assy



EM-30LP Class C x4
Apply a normal amount of
MOLYKOTE (EM30LP) to the
hatching areas (Shaft)

⑧ 44458601PA Belt-Unit



EM-30LP Class A x8pcs
Apply a small amount of MOLYKOTE (EM30LP) to the inside of Bearing-TR(Belt).
(Both sides, total 8 places)

EM-30LP Class C x2pcs
Apply a normal amount of MOLYKOTE (EM30LP) to bearin portion (Both side).

EM-30LP Class B
Apply a normal amount of MOLYKOTE (EM30LP) to the whole circle of gear teeth (2 places).

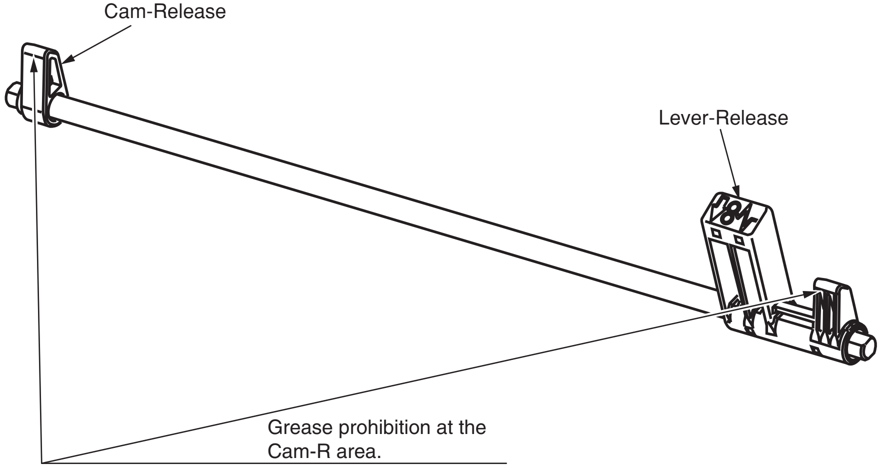
EM-30LP Class C
Apply a normal amount of MOLYKOTE (EM30LP) to bearin portion (Both side).

GE-334C Class C
Apply a normal amount of FLOIL (GE-334C) to bearin portion (2 places).

Roller-Drive
EM-30LP Class B
Apply a normal amount of MOLYKOTE (EM30LP) to the whole circle of gear teeth (2 places).

Roller-TR
Roller-Idle
Spring-TR
Roller-Drive

⑨ 44381001PA Fuser-Assy



Cam-Release
Lever-Release

Grease prohibition at the Cam-R area.

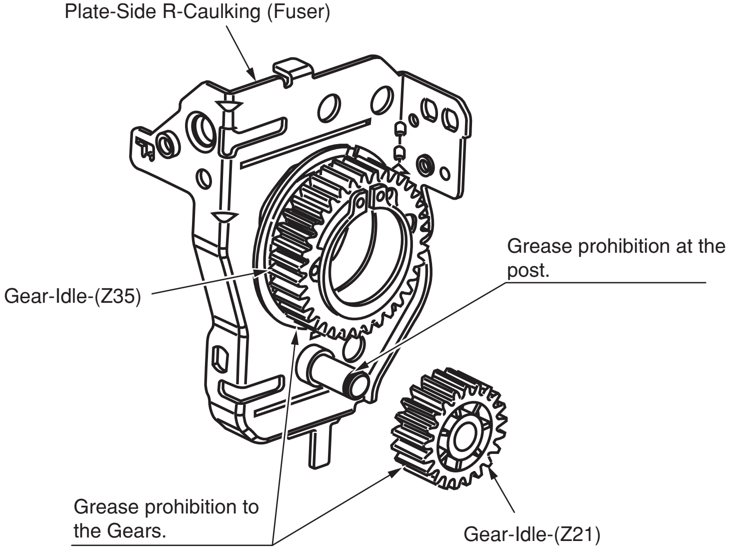
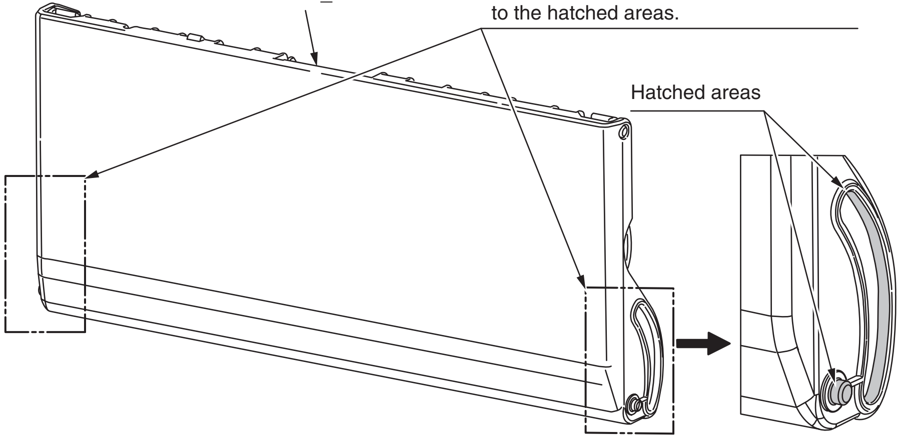


Plate-Side R-Caulking (Fuser)
Gear-Idle-(Z35)
Gear-Idle-(Z21)

Grease prohibition at the post.

Grease prohibition to the Gears.

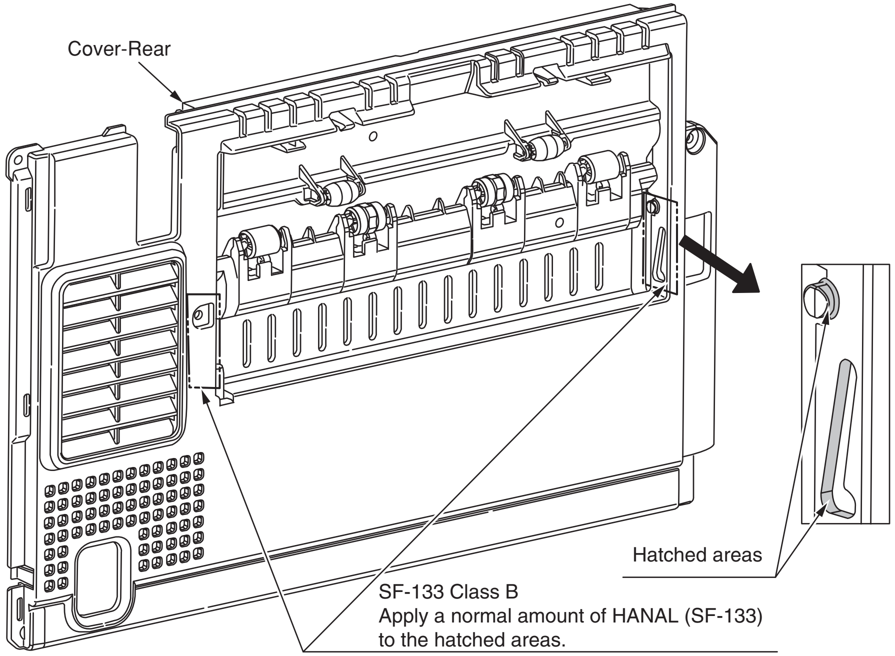
⑩ -1 44453701PA Cover-Assy.-Rear


Stacker-FU_Base
Hatched areas

SF-133 Class B
Apply a normal amount of HANAL (SF-133) to the hatched areas.

Leave it for about 3 minutes (drying time) after painting HANAL SF-133, and then assemble the Cover-Assy.-Stacker.

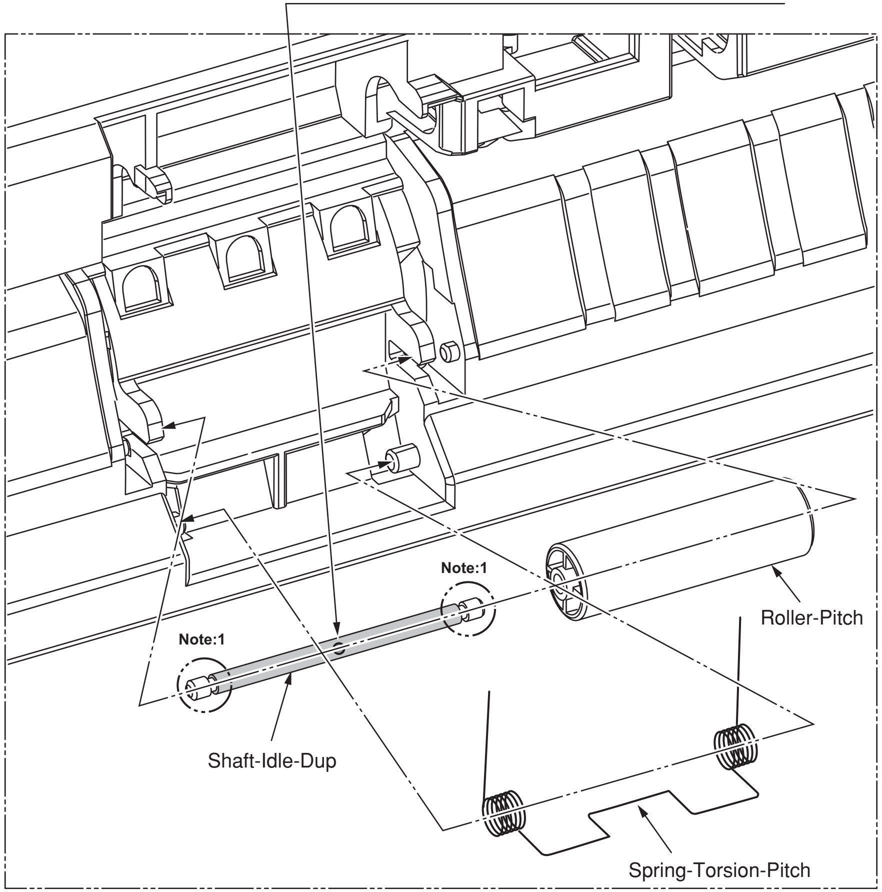
⑩ -2 44453701PA Cover-Assy.-Rear


Cover-Rear
Hatched areas

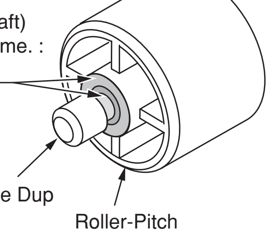
SF-133 Class B
Apply a normal amount of HANAL (SF-133) to the hatched areas.

⑪ 44359201PA Frame-Assy.-MPT

EM-30LP Class B
Apply a normal amount of MOLYKOTE (EM-30LP) to the hatched areas. (Center of shaft)


Note:1
Note:1
Roller-Pitch
Shaft-Idle-Dup
Spring-Torsion-Pitch

Note:1 EM-30LP Class A
Apply a normal amount of MOLYKOTE (EM-30LP) to the hatched areas.
(Side of roller and ditch of shaft)
(The other side is also the same. : Two places in total)


Shaft-Idle Dup
Roller-Pitch

5. MAINTENANCE MENUS

MC561/MC361/MC351 can be adjusted by using Maintenance Utility, or button operation on its operator panel.

The printer has maintenance menus in addition to general menus. The menus intended for adjustment purposes should be selected.

5.1 Maintenance Menu 141
5.2 Service Bit Menu 149
5.3 Maintenance Utility 151
5.4 Self-diagnostic mode 154
5.5 Switch pressing function when power supply is turned on 172
5.6 Settings after Parts Replacement 173
5.7 Manual density adjustment operation 177

5.1 Maintenance Menu

Service Menu

When the equipment is in standby mode, access the password entry screen by pressing [Setting] → [#] → [0] → [1] → [0] → [3] → [*].

Note! The initial Password is set to "000000" (six zeros).

Item1	Item2	Item3	Item4	Item5	Value	Default value ODA	Default value OEL	Default value JP	Notes
Password					************				Enter the password for accessing the maintenance menu. 6 to 12 characters (numerals and lower-case alphabetic characters) may be entered.
	System Mainte-nance	OKIUSER *MPS mode: MPS. Not shown during maintenance.			ODA OEL APS JP1 JPOEM1 OEMA OEML				Set the destination. JPOEM1 : OEM for Japan OEMA : OEM for overseas, with A4 as default size OEML : OEM for overseas, with Letter as default size Device reboots automatically after exiting the menu. Displayed under the following conditions: "System Maintenance"- When "OKIUSER" is other than JPOEM1, OEMA, or OEML, and Manufacturer is "OKI DATA CORP"
		Format SD Memory Card *Shown only when an SD card is connected	Execute						Formats the SD card. A confirmation message is displayed when the Enter switch is pressed. When "No" has been selected, the system returns to the previous menu. When "Yes" has been selected, the menu is exited and formatting of the inserted SD card begins. Displayed under the following conditions: SD card inserted ("Boot Menu" - "Storage Setup" - "Enable SD Card" is Yes)
		Format Flash Memory	Execute						Formats flash ROM memory. When this command is executed, the menu is exited and formatting of the resident (onboard) flash device begins. Use of this command is strictly prohibited (contact design before use)
		Reset Admin Password	Execute						Returns the administrator password to the factory default value.
		All Reset *MPS mode: MPS. Not shown during maintenance.	Execute						Returns the content of EEPROM, flash, and the HDD to their factory default values. When this command is executed, the following confirmation message is displayed: "This change will reboot the device automatically. Proceed?" When "No" has been selected, the system returns to the previous menu. When "Yes" has been selected, the menu is exited immediately and then, after rebooting, reset processing begins. See the "format scope" sheet for the scope of formatting.
		Test Print Menu			Enable Disable				Switches between displaying and not displaying the "ID Check" and "Engine Information" in the "Report" - "Print Report" category (default: DISABLE). If this item is set to "DISABLE," the "ID Check" and "Engine Information" will remain undisplayed at all times. The printer will reboot after changing the settings and exiting the menu.

Item1	Item2	Item3	Item4	Item5	Value	Default value ODA	Default value OEL	Default value JP	Notes
Password	System Maintenance	Change Password	New Pass-word		***********				Set a new password for accessing the maintenance menu. 6 to 12 characters (numerals and lower-case alphabetic characters) may be entered.
			Verify Pass-word		************				Have the user enter the new password for accessing the maintenance menu, set using "NEW PASSWORD," for confirmation purposes. 6 to 12 characters (numerals and lower-case alphabetic characters) may be entered.
		Check RTC							Displays a snapshot of the current time. (The time does not change during display.)
		Save Syslog	Execute						Saves the network communication log (syslog) to nonvolatile memory.
		Print Syslog	Execute						Prints the network communication log (syslog).
	Panel Maintenance	Buzzer Test			Low Middle High				Select the volume of the forced buzzer. For the buzzer pattern, use the error sound (three buzzes)
	Copy Maintenance	Color Copy			Enable Disable				Switches between enabling and disabling pressing the color start key during copying. If this is set to "disabled," presses on the color start key in copy mode will be rejected by the panel.
		Print Check Pattern	Execute						Starts printing from the panel using a copy evaluation test chart inside the FW.
	Scanner Maintenance	Scanner Calibration	Execute						Starts execution of scanner calibration. Instead of being conducted automatically after operating for a certain period of time, calibration is executed by the user as needed. During calibration, the fact that calibration is underway is displayed. Note: Also included under AdminSetting.
		Adjust Scan Position	FBS	Front Edge	+30 ~ -30 mm	0	0	0	During book scanning, add a value for the basic value (= 5 mm) when reading the shadow of the front edge of the document. Adjust in intervals of one step = 4/600 dpi (=0.17 mm).

Item1	Item2	Item3	Item4	Item5	Value	Default value ODA	Default value OEL	Default value JP	Notes
Password	Scanner Maintenance	Adjust Scan Position	ADF (Front-side)	Front Edge	+30 ~ -30 mm	0	0	0	When reading a document from the ADF, add a value for the basic value when reading the shadow of the front edge of the document. To skip the front edge of the document, add a negative value. Increase or decrease the number of motor pulses from detection by the sensor of the front edge of the media until actual reading starts. Adjust in intervals of one step = 4/600 dpi (= 0.17 mm).
				Back Edge	+30 ~ -30 mm	0	0	0	When reading a document from the ADF, add a value for the basic value when skipping the back edge of the document. To read the shadow of the back edge of the document, add a negative value. Increase or decrease the number of motor pulses from detection by the sensor of the back edge of the media until actual reading ends. Adjust in intervals of one step = 4/600 dpi (= 0.17 mm).
			ADF (Back-side)	Front Edge	+30 ~ -30 mm	0	0	0	When reading a document from the ADF, add a value for the basic value when reading the shadow of the front edge of the document. To skip the front edge of the document, add a negative value. Increase or decrease the number of motor pulses from detection by the sensor of the front edge of the media until actual reading starts. Adjust in intervals of one step = 4/600 dpi (= 0.17 mm).
				Back Edge	+30 ~ -30 mm	0	0	0	When reading a document from the ADF, add a value for the basic value when skipping the back edge of the document. To read the shadow of the back edge of the document, add a negative value. Increase or decrease the number of motor pulses from detection by the sensor of the back edge of the media until actual reading ends. Adjust in intervals of one step = 4/600 dpi (= 0.17 mm).
			Adjust ADF Scan Position		+30 ~ -30 mm	0	0	0	Set the CIS reading position of the ADF for the focusing standard. Adjust in intervals of one step = 4/600 dpi (= 0.17 mm). This is correlated to adjustment of the ADF front edge position.
		Adjust Mech.	Adjust Mech.	FB Drive Current	1 ~ 140				Only for engineering test Connect a panel or PC and set the electric current value of the scanner motor.
				FB Keep Current	1 ~ 140				
				ADF Drive Current	1 ~ 140				
				ADF Keep Current	1 ~ 140				

Item1	Item2	Item3	Item4	Item5	Value	Default value ODA	Default value OEL	Default value JP	Notes
Password	Scanner Maintenance	Adjust CIS	Adjust CIS		simple R continuous G continuous B continuous All continuous				Only for engineering test Sequentially light the designated RGB colors and check them during calibration configuration duties. Move the CIS to the standard position. In the position moved to, sequentially light R, followed by G and B in the same manner. Light each color for approximately 3 seconds. Display "Testing" during execution? → On the panel, display "CIS light testing" and "Cancel."
			Check CIS		300dpi 600dpi 1200dpi --- Results displayed --- CCD_SIG9_WID_H 0 x 000000 CCD_SIG2_WID_H 0 x 000000				Only for engineering test Check CIS maintenance displays the exposure time at each resolution. When resolution is set, scanner calibration is conducted at that resolution and the following results are displayed: Red-1 Red-2 Green-1 Green-2 Blue-1 Blue-2 Lsync Note: CIS exposure time varies with resolution.
			Set CIS Exposure time		0 ~ 4294967295				Only for engineering test Change LED exposure time settings, and then read the document using PC Scan. Reading implemented for the LED exposure time in the settings, without conducting calibration. A warning is displayed when a value greater than the Lsync cycle has been set. Settings are shown below. Red-1 Red-2 Green-1 Green-2 Blue-1 Blue-2 Lsync

Item1	Item2	Item3	Item4	Item5	Value	Default value ODA	Default value OEL	Default value JP	Notes
Password	Scanner Maintenance	AFE Parameter			R3 (03h) R32 (20h) R33 (21h) R34 (22h) R35 (23h) R36 (24h) R37 (25h) R38 (26h) R39 (27h) R40 (28h) R41 (29h) R42 (2Ah) R43 (2Bh)				Only for engineering test Change AFE (IC) register settings (3 - 9 settings). Then, read the document using PC Scan. W : Display message showing that settings are complete. R : Display read value.
		Mechanical Test	ADF Test	Simplex/ Duplex	Simplex Duplex				Conduct mechanical testing (without reading an image). ADF : Test moving original document (stops when set document has been moved) May choose from single- or double-sided feeding. FBS : CIS moving test (stops after designated number of operations) Use fastest read speed (30 cpm). Display "Testing" during execution? → On the panel, indicate current number of executions using the message "Test no. xxx underway."
				Speed	Color 300 x 300dpi Color 300 x 600dpi Color 600 x 600dpi Mono				
				Execute	--Results-- Test no. xxx underway				

Item1	Item2	Item3	Item4	Item5	Value	Default value ODA	Default value OEL	Default value JP	Notes
Password	Scanner Maintenance	Mechanical Test	FBS Test	Speed	Color 300x300dpi Color 300x600dpi Color 600x600dpi Mono				Conduct mechanical testing (without reading an image). ADF : Test moving original document (stops when set document has been moved) May choose from single- or double-sided feeding. FBS : CIS moving test (stops after designated number of operations) Use fastest read speed (40 cpm). Display "Testing" during execution? → On the panel, indicate current number of executions using the message "Test no. xxx underway."
				TImes	0~65535				
				Execute	--results-- Test no. xxx underway				
			Sensor Test		Examples of this display are shown below: ① MEDIA H/L ② SCAN H/L ③ REVERSE H/L ④ ADF CVR H/L ⑤ FB H/L				Display sensor status (H/L) in real time. Change the content of the display as needed when the sensor status displayed changes. ① Set-document detection sensor (MEDIA) ② Scanning sensor (SCAN) ③ Reverse sensor (REVERSE) ④ ADF cover-open senor (ADF CVR) ⑤ FB home-position sensor (FB HP)
			ADF Motor Test		Forward Forward Continuous Reverse Reverse Continuous				Test the ADF motor ① After a short press of the button, rotate in the CW direction for 10 seconds and then stop. ② After a long press of the button, rotate in the CW direction continuously. Stop when the Stop button is pressed. ③ After a short press of the button, rotate in the CCW direction for 10 seconds and then stop. ④ After a long press of the button, rotate in the CCW direction continuously. Stop when the Stop button is pressed. Deemed successful at all times. No need to display results. Display "Testing" during execution? → Display a message on the panel showing that testing is underway.
			Solenoid Test		Once Continuous				After a short press of the button, intake for 2 seconds and then stop. After a long press of the button, intake for 2 seconds and stop for 3 seconds repeat. Stop when the Stop button is pressed. Deemed successful at all times. No need to display results. Display "Testing" during execution? → Display a message on the panel showing that testing is underway.

Item1	Item2	Item3	Item4	Item5	Value	Default value ODA	Default value OEL	Default value JP	Notes
Password	Fax Maintenance *This menu not shown on models with no fax.	Service Bit			ON, OFF				A setting for enabling configuration available only to service personnel: On/Off When this is set to "off," the user has access only to certain menus. Note: This is displayed only for destinations "JP1" and "JPOEM."
		Country Code			U.S.A. International United Kingdom Ireland Norway Sweden Finland Denmark Germany Hungary Czech/Slovakia Poland Switzerland Austria Belgium Netherlands France Portugal Spain Italy Greece Australia New Zealand Singapore Hong Kong Latin America Mexico China Korea Thailand Malaysia Jordan Argentina Brazil South Africa Belarus Moldova Turkey Ukraine				Select country of installation. Default values: ODA : U.S. OEL : International APS : Australia JP1 : Japan JPOEM1 : Japan OEMA : International OEML : U.S. OEMM1 : Japan OEMM2 : U.S. OEMM3 : International This is displayed only for destinations "JP1" and "JPOEM." The list of countries needs to be considered separately. When changing country codes, the following confirmation message is displayed: "This change will reboot the device automatically. Proceed?" The change is executed when "Yes" is selected.

Item1	Item2	Item3	Item4	Item5	Value	Default value ODA	Default value OEL	Default value JP	Notes
Password	Fax Maintenance *This menu not shown on models with no fax.	Line Test	Tone Send Test		2100Hz 1850Hz 1650Hz 1100Hz				Tone send test conducted.
			DP Send Test		0 ~ 9, #, * Key				DP send test conducted.
			MF Send Test		0 ~ 9, #, * Key				MF send test conducted.
			Modem Signal Send Test		V.34 (33.6Kbps) V.34 (28.8Kbps) V.17 (14.4Kbps) V.17 (12.0Kbps) V.17 (9.6Kbps) V.17 (7.2Kbps) V.29 (9.6Kbps) V.29 (7.2Kbps) V.27 (4.8Kbps) V.27 (2.4Kbps) V.21 (0.3Kbps)				Modem-signal send test conducted. 11 types available, including V. 34 (33.6 Kbps).
		T.30 Monitor	Execute						The unit keeps the last transmission log (Tx/Rx commands) on volatile memory, and print when select "Execute". If turn off the unit, the records will be lost.
	Print Maintenance	Personality	IBM 5577		Enable Disable				
			IBM PPR III XL		Enable Disable	Enable	Enable	Disable	
			EPSON FX		Enable Disable	Enable	Enable	Disable	
		Engine Diag Mode							After entering this mode, please see Section 5.4 for getting the further information.

5.2 Service Bit Menu

Additional Fax Setting menu

(When setup ServiceBit=ON, the following items will be displayed at Admin Setup → Fax Setup)

#	Item	Settings	Description	ODA	OEL	JP1
1	Service Bit	ON OFF	If set OFF, some menu items are not displayed on the panel. It will be shown when OKIUSER set on except for JP1, JPOEM1.	OFF	OFF	OFF
2	Country Code	U.S.A. International United Kingdom Ireland Norway Sweden Finland Denmark Germany Hungary Czech/Slovakia Poland Switzerland Austria Belgium Netherlands France Portugal Spain Italy Greece Australia New Zealand Singapore Hong Kong Latin America Mexico China Russia Taiwan Japan Korea Thailand Malaysia Jordan Argentina Brazil South Africa Belarus Moldova Turkey Ukraine	Select the country in which the MC361/MC561 is going to be installed. When the desired country code is selected by this setting, the PTT parameters that are suited to the target country are set. In this setting, any country code can be selected regardless of the OKIUSER setting.	USA	International	Japan
3	A/R Full Print	ON OFF	If set ON, the unit will print Fax Tx/Rx Log every 50 transmissions.	ON	ON	ON
4	Tone For Echo (For Transmission)	Enable Disable	It only shows, when ServiceBit = ON.	Disable	Disable	Disable
5	Tone For Echo (For Reception)	Enable Disable	It only shows, when ServiceBit = ON.	Disable	Disable	Disable
6	Attenuator	0~15 dB	Enter Attenuator. It only shows, when ServiceBit = ON.	Depends on Country Code		
7	MF Attenuator	0~15 dB	Enter MF (Tone) Attenuator. It only shows, when ServiceBit = ON.	Depends on Country Code		
8	Pulse Make Ratio	33% 39% 40%	Sets the make rate of DP (10 pps) during call. It only shows, when ServiceBit = ON and Tone/Pulse setting = PULSE.	Depends on Country Code		
9	Pulse Dial Type	N 10-N N+1		Depends on Country Code		
10	MF(Tone) Duration	75, 85, 100 mseconds	Enter MF (Tone) Duration. It only shows, when ServiceBit = ON and Tone/Pulse setting = TONE.	Depends on Country Code		

#	Item	Settings	Description	ODA	OEL	JP1
11	Calling Timer	1~255 second (s)	Sets the call connection wait time (TO timer). When the setting value is "0", the MFP runs at the initial value of each country. When any value other than "0" is set, the call connection wait time (TO timer) can be selected in the range of 1 to 255 mm. It only shows, when ServiceBit = ON.	Depends on Country Code		
12	Monitor Control	OFF Type1 Type2 (It only shows, when ServiceBit = ON)				
13	Monitor Volume	OFF Low Middle High (It only shows, when ServiceBit = ON)				

5.3 Maintenance Utility

5.3.1 Maintenance Utility

The adjustments described in table 5-1 should be made by using Maintenance Utility.

The following details the utility:

(1) Maintenance Utility Operating Manuals:

42678801FU01 Rev. 43 (Version 30.8) or higher (Japanese)

42678801FU02 Rev. 43 (Version 30.8) or higher (English)

(2) Maintenance Utility program:

Applicable operating system	File name	Part number
Win 2000/ XP/ Vista/ 7 (Japanese/ English)	MuWin.zip	42678801FW01 Rev. 43 (Version 1.44.0) or higher

Table 5-1: Adjustment options in Maintenance Utility

	Option	Adjustment	Section in Maintenance Utility Operating Manual	Operation from operator panel (section in this maintenance manual)
1	Board replacement	Copies information in the EEPROM in the PU block, and the settings in the EEPROM in the CU block. Purpose: To copy the above data onto a CU/PU board with which to replace the CU/PU board for a maintenance purpose.	2.4.1.1.9	Unavailable
2	Serial number setting	Rewrites the serial number recorded in the PU block and selects and rewrites the printer serial number recorded in the CU block and rewrites the output mode recorded in it. Purpose: To configure a maintenance replacement CU/PU board onto which the CU/PU board information cannot be copied with the board replacement function (e.g. due to an interface error).	2.4.1.1.10.3	Unavailable
3	Factory/ Shipping mode	Switches between the Factory and Shipping modes. Purpose: To configure a maintenance replacement CU/PU board onto which the CU/PU board information cannot be copied with the board replacement function (e.g. due to an interface error). The maintenance board is put to the Factory mode usually by default and, by using this function, must be set to the Shipping mode.	2.4.1.1.10.4	5.3.2.10
4	Board option setup information	Checks serial number information and the Factory/Shipping mode.	2.4.1.1.7	Unavailable
5	USB software update	Updates the USB software.	2.4.2.2.1	Unavailable
6	NIC software update	Updates the NIC software.	2.4.2.2.17	Unavailable
7	MAC address setting	Sets the MAC address.	2.4.2.2.5	Unavailable
8	Consumable counter maintenance function	Copies the consumable counters: Image drum counters (Y, M, C and K) Fuser counter Belt counter Toner counters (Y, M, C and K) Purpose: To copy the counter value of each consumable in use in the printer to use in another printer.	2.4.1.2.1	Unavailable
9	Destination/ PnP information setup	Sets and checks the printer's (CU) destination, device identification and USB identification.	2.4.1.2.9	5.4.3
10	Password initialization	Initializes a Password.	2.4.2.2.13	

	Option	Adjustment	Section in Maintenance Utility Operating Manual	Operation from operator panel (section in this maintenance manual)
11	Network log storage function	Stores a network log file.	2.4.2.2.14	Unavailable
12	PU log file storage function	Stores a PU log file	2.4.2.2.16	Unavailable
13	Consumable counter display	Checks the current consumable counter values.	2.4.1.3.1	5.1 (ENG STATUS PRINT)
14	Menu setting check	Displays the menu settings set on the printer (CU).	2.4.1.3.2	Print a configuration report (Menu Map) (refer to user documentation).
15	Printer information check	Checks the MAC address and each firmware version.	2.4.1.3.3	Print a configuration report (Menu Map) (refer to user documentation).
16	CPU and Memory value check	Checks the information on the printer's installed (CU) CPU and memory.	2.4.1.3.4	Print a configuration report (Menu Map) (refer to user documentation).
17	Test print	Executes the local print function and sends a specified file. Purpose: To check the printer for operation it performs solely and send a download file.	2.4.1.4.1	Perform local printing (refer to System Specification).
18	Switch scan test	Executes the switch scan test. Purpose: To check each sensor for operation.	2.4.1.5.1	
19	Motor clutch test	Executes the motor clutch test. Purpose: To check each item, such as a motor or clutch, for operation.	2.4.1.5.2	
20	Color registration adjustment test	Executes the color registration adjustment test.	2.4.1.5.3	
21	Density adjustment test	Executes the density adjustment test.	2.4.1.5.4	
22	Auto density adjustment control parameter setting (never use this option)	Sets an auto density setting control parameter.	Never use this option.	
23	Counter display	Checks the consumable, continuous consumable and waste toner counters.	2.4.1.5.6	
24	Local parameter setting	Switches between the Factory and Shipping modes and checks the status of the fuse.	2.4.1.5.7	
25	Engine parameter setting	Makes an engine parameter setting.	2.4.1.5.8	
26	Media transfer parameter setting	Makes a print media transfer parameter setting.	2.4.1.5.9	

Note! Do not operate or set options added with ‘Never use this option,’ or a malfunction is potentially caused.

Before starting the maintenance, please disable MPS mode setting when the unit activate MPS mode as Enable. The condition of MPS mode is displayed on the header of Configuration pages as "MPS : OFF/ON".

5.3.2 Scanner Maintenance Tool

A scanner maintenance tool is used to inspect a scanner for correct reading operation and has the following functions.

- Reads reference charts to inspect for correct scans of images.
- Performs alignment and image quality (tint) correction based on inspection results.

When an erroneous reading position, which is a problem of vertical displacement of images, or poor image quality (tint) occurs, you can make adjustments for scans using this application.
This application cannot correct skew of original copies, horizontal displacement, or poor image quality except tint.

(1) Scanner Maintenance Tool Operating Procedure

44869501FU01 Ver.1.0 or higher (Japanese)

44869501FU02 Ver1.0 or higher (English)

(2) Scanner Maintenance Tool program:

Applicable operating system	File name	Part number
Windows2000/ WindowsXP/Vista/7 (Japanese/ English)	ScannerMuJP.ZIP ┬ ¥ScannerMaintenance¥Scanner Maintenance Tool (Japanese) └ ¥ScannerDriver¥Scanner Driver(Japanese) ScannerMuUS.ZIP ┬ ¥ScannerMaintenance¥Scanner Maintenance Tool (English) └ ¥ScannerDriver¥Scanner Driver(English)	44869501FW01 Ver1.0 or higher 44869501FW02 Ver1.0 or higher

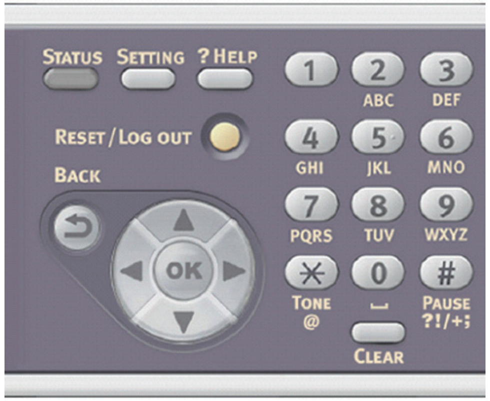
5.4 Self-diagnostic mode

This section describes LEVEL 0 and LEVEL 1.

5.4.1 Operator Panel

The following operational description on the self-diagnostic is premised on the following operator panel layout:

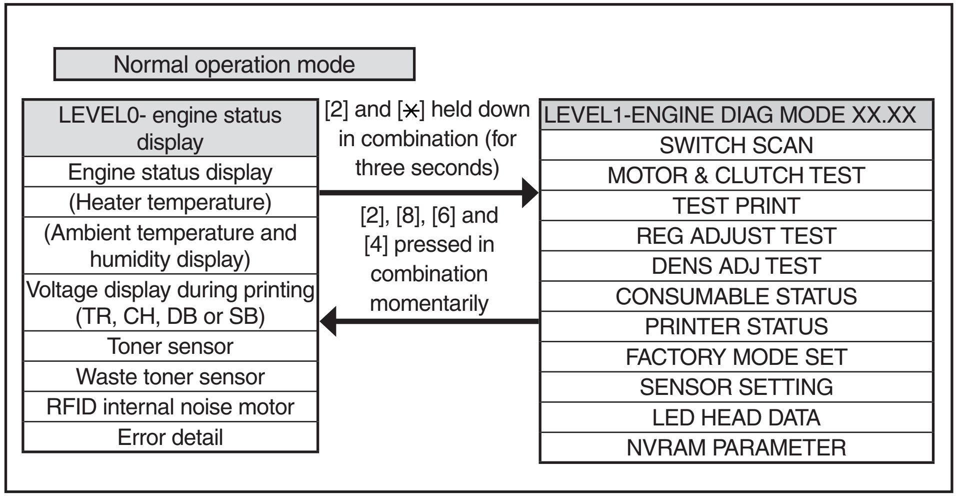
Example : MC561



Self-diagnostic mode layout (entire)

(1) Menu option switching

Only while displayed as shown in a shaded area (XXXXX), the level of the self-diagnostic mode can be switched. [2] or [8] is used to switch to the option in a non-shaded area (XXXXX).



Normal operation mode

LEVEL0- engine status display
- Engine status display
- (Heater temperature)
- (Ambient temperature and humidity display)
- Voltage display during printing (TR, CH, DB or SB)
- Toner sensor
- Waste toner sensor
- RFID internal noise motor
- Error detail

[2] and [✲] held down in combination (for three seconds) →

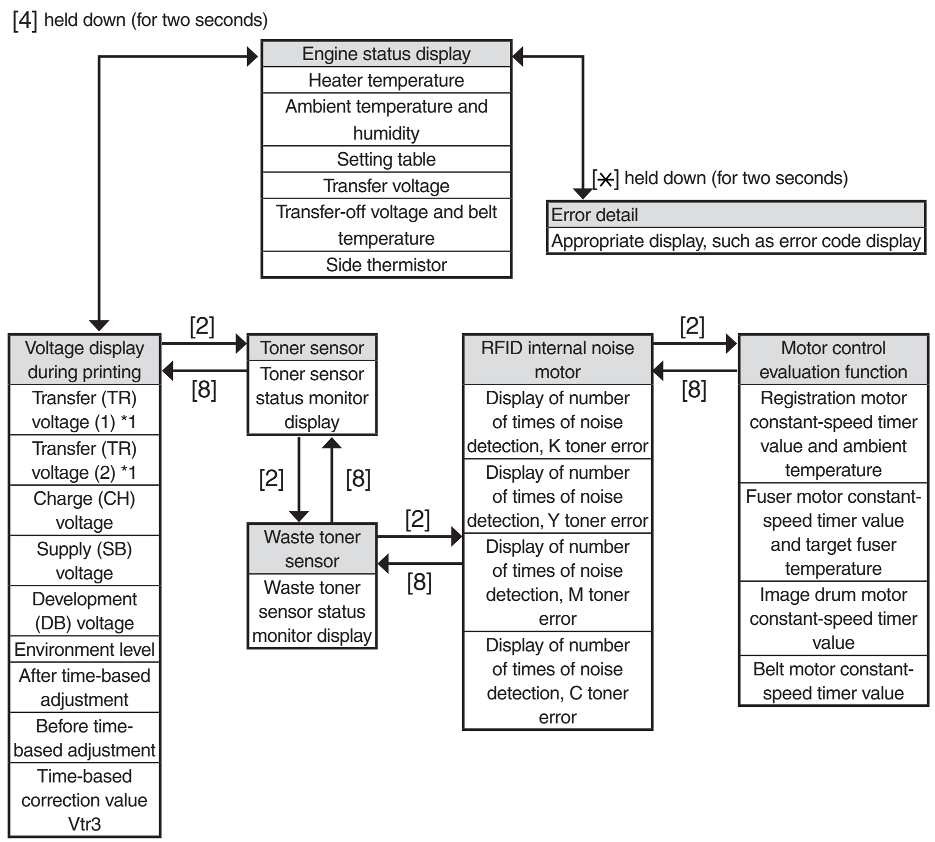
← [2], [8], [6] and [4] pressed in combination momentarily

LEVEL1-ENGINE DIAG MODE XX.XX
- SWITCH SCAN
- MOTOR & CLUTCH TEST
- TEST PRINT
- REG ADJUST TEST
- DENS ADJ TEST
- CONSUMABLE STATUS
- PRINTER STATUS
- FACTORY MODE SET
- SENSOR SETTING
- LED HEAD DATA
- NVRAM PARAMETER

LEVEL0

(1) Menu option switching

Holding down [4] or [*] or momentarily pressing [2] or [8] switches between the options in shaded areas (XXXXX). [2] or [8] is used to switch between the options in non-shaded areas (XXXXX). Holding down [4] restores the display that selects an option.

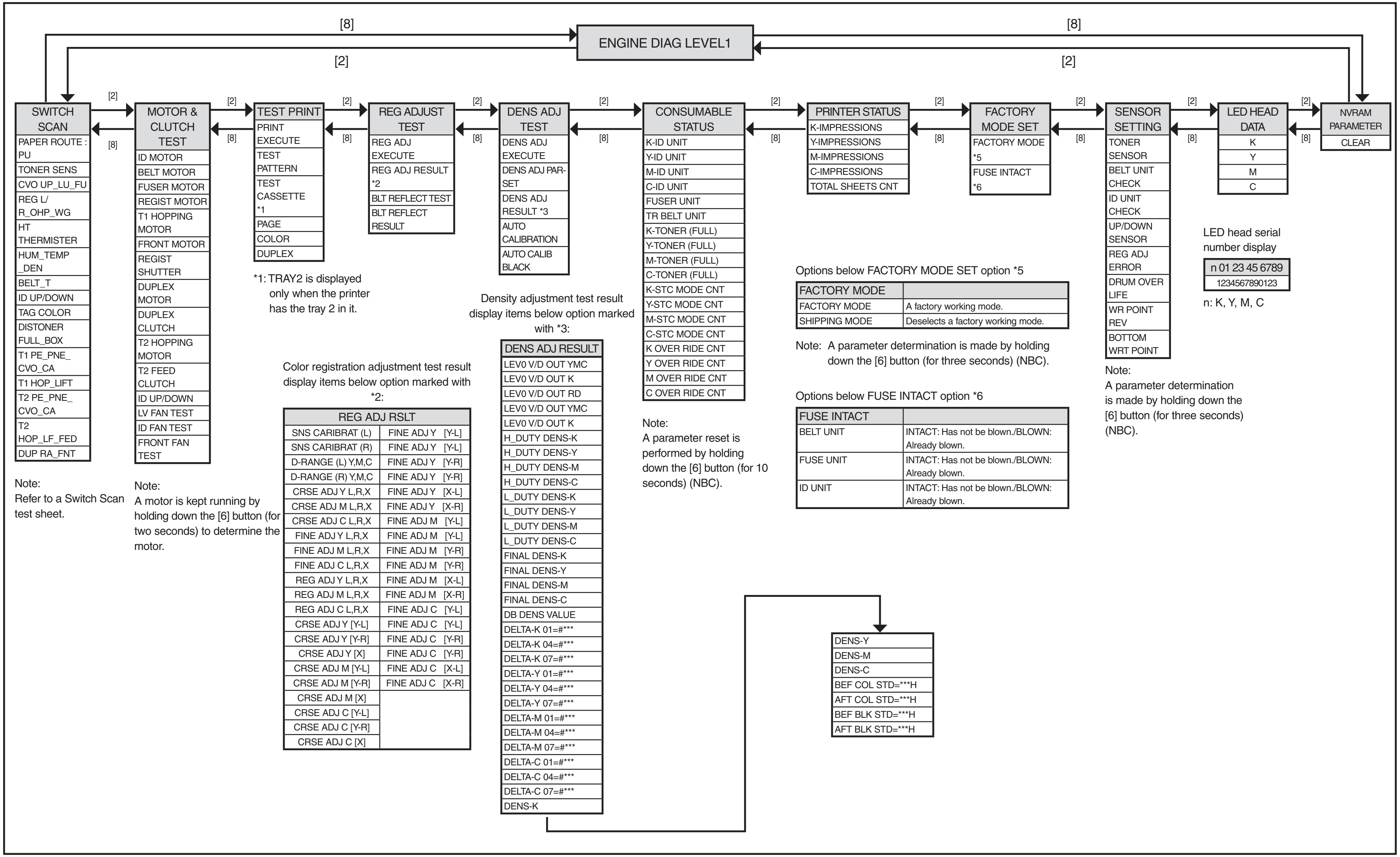

[4] held down (for two seconds)
Engine status display
Heater temperature
Ambient temperature and humidity
Setting table
Transfer voltage
Transfer-off voltage and belt temperature
Side thermistor
[*] held down (for two seconds)
Error detail
Appropriate display, such as error code display
Voltage display during printing
Transfer (TR) voltage (1) *1
Transfer (TR) voltage (2) *1
Charge (CH) voltage
Supply (SB) voltage
Development (DB) voltage
Environment level
After time-based adjustment
Before time-based adjustment
Time-based correction value Vtr3
[2]
[8]
Toner sensor
Toner sensor status monitor display
[2]
[8]
Waste toner sensor
Waste toner sensor status monitor display
[2]
[8]
RFID internal noise motor
Display of number of times of noise detection, K toner error
Display of number of times of noise detection, Y toner error
Display of number of times of noise detection, M toner error
Display of number of times of noise detection, C toner error
[2]
[8]
Motor control evaluation function
Registration motor constant-speed timer value and ambient temperature
Fuser motor constant-speed timer value and target fuser temperature
Image drum motor constant-speed timer value
Belt motor constant-speed timer value

*1: Pressing the [#] button switches between colors.

LEVEL1

(1) Menu option switching

[2] or [8] is used to select the option shown in a shaded area (XXXXX), and pressing [6] executes the option. [6] or [4] is used to switch to the option in a non-shaded area (XXXXX), and, after that, [2] or [8] is used to select an option. A selected test is executed by pressing [6], and ended by pressing [4].


ENGINE DIAG LEVEL1
[8]
[2]
SWITCH SCAN
PAPER ROUTE : PU
TONER SENS
CVO UP_LU_FU
REG L/ R_OHP_WG
HT THERMISTER
HUM_TEMP _DEN
BELT_T
ID UP/DOWN
TAG COLOR
DISTONER FULL_BOX
T1 PE_PNE_ CVO_CA
T1 HOP_LIFT
T2 PE_PNE_ CVO_CA
T2 HOP_LF_FED
DUP RA_FNT
MOTOR & CLUTCH TEST
ID MOTOR
BELT MOTOR
FUSER MOTOR
REGIST MOTOR
T1 HOPPING MOTOR
FRONT MOTOR
REGIST SHUTTER
DUPLEX MOTOR
DUPLEX CLUTCH
T2 HOPPING MOTOR
T2 FEED CLUTCH
ID UP/DOWN
LV FAN TEST
ID FAN TEST
FRONT FAN TEST
TEST PRINT
PRINT EXECUTE
TEST PATTERN
TEST CASSETTE *1
PAGE
COLOR
DUPLEX
REG ADJUST TEST
REG ADJ EXECUTE
REG ADJ RESULT *2
BLT REFLECT TEST
BLT REFLECT RESULT
DENS ADJ TEST
DENS ADJ EXECUTE
DENS ADJ PAR-SET
DENS ADJ RESULT *3
AUTO CALIBRATION
AUTO CALIB BLACK
CONSUMABLE STATUS
K-ID UNIT
Y-ID UNIT
M-ID UNIT
C-ID UNIT
FUSER UNIT
TR BELT UNIT
K-TONER (FULL)
Y-TONER (FULL)
M-TONER (FULL)
C-TONER (FULL)
K-STC MODE CNT
Y-STC MODE CNT
M-STC MODE CNT
C-STC MODE CNT
K OVER RIDE CNT
Y OVER RIDE CNT
M OVER RIDE CNT
C OVER RIDE CNT
PRINTER STATUS
K-IMPRESSIONS
Y-IMPRESSIONS
M-IMPRESSIONS
C-IMPRESSIONS
TOTAL SHEETS CNT
FACTORY MODE SET
FACTORY MODE *5
FUSE INTACT *6
SENSOR SETTING
TONER SENSOR
BELT UNIT CHECK
ID UNIT CHECK
UP/DOWN SENSOR
REG ADJ ERROR
DRUM OVER LIFE
WR POINT REV
BOTTOM WRT POINT
LED HEAD DATA
K
Y
M
C
NVRAM PARAMETER
CLEAR

Note:
Refer to a Switch Scan test sheet.

Note:
A motor is kept running by holding down the [6] button (for two seconds) to determine the motor.

*1: TRAY2 is displayed only when the printer has the tray 2 in it.

Color registration adjustment test result display items below option marked with *2:

REG ADJ RSLT	
SNS CARIBRAT (L)	FINE ADJ Y [Y-L]
SNS CARIBRAT (R)	FINE ADJ Y [Y-L]
D-RANGE (L) Y,M,C	FINE ADJ Y [Y-R]
D-RANGE (R) Y,M,C	FINE ADJ Y [Y-R]
CRSE ADJ Y L,R,X	FINE ADJ Y [X-L]
CRSE ADJ M L,R,X	FINE ADJ Y [X-R]
CRSE ADJ C L,R,X	FINE ADJ M [Y-L]
FINE ADJ Y L,R,X	FINE ADJ M [Y-L]
FINE ADJ M L,R,X	FINE ADJ M [Y-R]
FINE ADJ C L,R,X	FINE ADJ M [Y-R]
REG ADJ Y L,R,X	FINE ADJ M [X-L]
REG ADJ M L,R,X	FINE ADJ M [X-R]
REG ADJ C L,R,X	FINE ADJ C [Y-L]
CRSE ADJ Y [Y-L]	FINE ADJ C [Y-L]
CRSE ADJ Y [Y-R]	FINE ADJ C [Y-R]
CRSE ADJ Y [X]	FINE ADJ C [Y-R]
CRSE ADJ M [Y-L]	FINE ADJ C [X-L]
CRSE ADJ M [Y-R]	FINE ADJ C [X-R]
CRSE ADJ M [X]	
CRSE ADJ C [Y-L]	
CRSE ADJ C [Y-R]	
CRSE ADJ C [X]	

Density adjustment test result display items below option marked with *3:

DENS ADJ RESULT
LEV0 V/D OUT YMC
LEV0 V/D OUT K
LEV0 V/D OUT RD
LEV0 V/D OUT YMC
LEV0 V/D OUT K
H_DUTY DENS-K
H_DUTY DENS-Y
H_DUTY DENS-M
H_DUTY DENS-C
L_DUTY DENS-K
L_DUTY DENS-Y
L_DUTY DENS-M
L_DUTY DENS-C
FINAL DENS-K
FINAL DENS-Y
FINAL DENS-M
FINAL DENS-C
DB DENS VALUE
DELTA-K 01=#***
DELTA-K 04=#***
DELTA-K 07=#***
DELTA-Y 01=#***
DELTA-Y 04=#***
DELTA-Y 07=#***
DELTA-M 01=#***
DELTA-M 04=#***
DELTA-M 07=#***
DELTA-C 01=#***
DELTA-C 04=#***
DELTA-C 07=#***
DENS-K
DENS-Y
DENS-M
DENS-C
BEF COL STD=***H
AFT COL STD=***H
BEF BLK STD=***H
AFT BLK STD=***H

Note:
A parameter reset is performed by holding down the [6] button (for 10 seconds) (NBC).

Options below FACTORY MODE SET option *5

FACTORY MODE	
FACTORY MODE	A factory working mode.
SHIPPING MODE	Deselects a factory working mode.

Note: A parameter determination is made by holding down the [6] button (for three seconds) (NBC).

Options below FUSE INTACT option *6

FUSE INTACT	
BELT UNIT	INTACT: Has not be blown./BLOWN: Already blown.
FUSE UNIT	INTACT: Has not be blown./BLOWN: Already blown.
ID UNIT	INTACT: Has not be blown./BLOWN: Already blown.

Note:
A parameter determination is made by holding down the [6] button (for three seconds) (NBC).

LED head serial number display

n 01 23 45 6789
1234567890123

n: K, Y, M, C

5.4.2 Normal self-diagnostic mode (level 1)

The following is the normal self-diagnostic mode menu:

	Option	Self-diagnostic menu item	Adjustment	Maintenance Utility
1	Switch scan test	SWITCH SCAN	Performs input sensor and switch checking.	No. 18
2	Motor and clutch test	MOTOR&CLTCH TEST	Tests motor and clutch operation.	No. 19
3	Test printing	TEST PRINT	Prints a test pattern stored in the PU.	Unavailable
4	Color registration adjustment test	REG ADJUST TEST	Judges the color registration adjustment mechanism as pass or fail.	No. 20
5	Density adjustment test	DENS ADJ TEST	Judges the density adjustment mechanism as pass or fail.	No. 21
6	Consumable counter display	CONSUMABLE STATUS	Displays consumable usage.	No. 23
7	Consumable life counter display	PRINTER STATUS	Displays consumable life.	No. 23
8	Factory/Shipping mode setting	FACTORY MODE SET	Switches between the Factory and Shipping modes	No. 3, No. 24
9	Fuse status display		Displays the status of the fuses.	No. 24
10	Engine parameter setting	SENSOR SETTING	Sets whether to enable or disable error detection performed by each sensor.	No. 25
11	NVRAM parameter setting	NVRAM PARAMETER	Must not be used.	Unavailable

5.4.2.1 Entering self-diagnostic mode (level 1)

1. Make sure that the LCD is in standby state (no Error window is shown) and press the [Setting] to move to the setting widow and then press the following button in the indicated sequence.

   [#] → [0] → [1] → [0] → [3] → [*]

2. Type in the password to enter Service Maintenance Menu. It is [000000] by default. (Enter 0 six times)
3. Select [Printer Maintenance] → [Engine Diag Mode] in the Service Maintenance Menu and press the [6].

5.4.2.2 Exiting self-diagnostic mode

1. When the [4] is pressed from Diag Mode (Window displaying/Factory state), the setting window will return.

5.4.3 Switch scan test

The switch scan test is used for input sensor and switch checking.

1. Enter the self-diagnostic mode (level 1) and, until SWITCH SCAN appears on the upper display, press [2] or [8] ([2] displays the next test option and [8] displays the preceding test option). Then press the [6] button.

```
SWITCH SCAN

```

2. Press [2] or [8] until the option for unit(s) to test, which is shown in table 5-3, appears on the lower display ([2] displays the next option and [8] displays the preceding option).
3. Press the [6] button. The switch scan test starts, the unit(s)' name(s) and current status(es) being displayed.

```
PAPER ROTE:PU
1=H 2=L 3=H 4=L
```

   Operate the unit(s) (Figure 5-1). Display information in the appropriate area(s) of the LCD display [the information varies depending on the sensor(s)].

4. Press the [#] button to restore the state for step 2.
5. Repeat steps 2 through 4 when necessary.
6. Press [4] to end the test (the state for step 1 is restored).

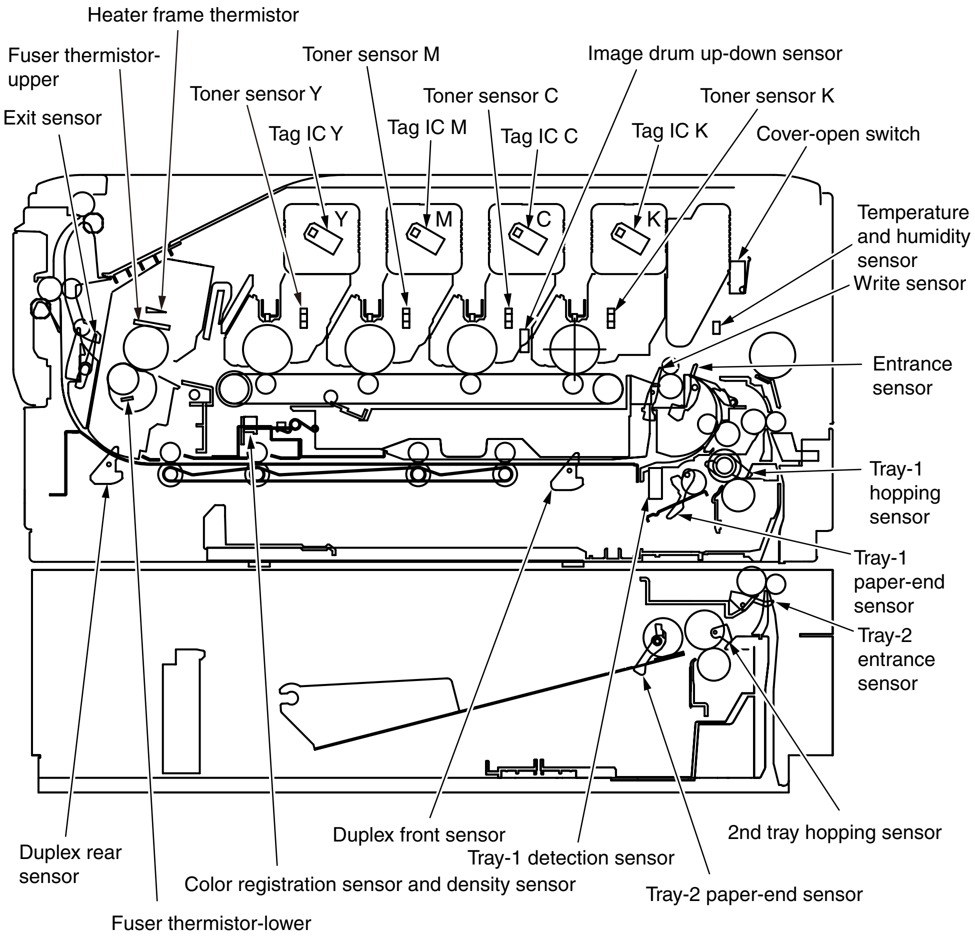

Heater frame thermistor
Fuser thermistor-upper
Toner sensor M
Image drum up-down sensor
Toner sensor Y
Toner sensor C
Toner sensor K
Exit sensor
Tag IC Y
Tag IC M
Tag IC C
Tag IC K
Cover-open switch
Y
M
C
K
Temperature and humidity sensor
Write sensor
Entrance sensor
Tray-1 hopping sensor
Tray-1 paper-end sensor
Tray-2 entrance sensor
Duplex rear sensor
Duplex front sensor
Tray-1 detection sensor
2nd tray hopping sensor
Color registration sensor and density sensor
Tray-2 paper-end sensor
Fuser thermistor-lower

Figure 5-1

Table 5-3: SWITCH SCAN detail

Lower display shows asterisk (*) when function on upper display is unavailable

*1: An L is displayed when cover is open.

Upper Display	1		2		3		4	
	Detail	Lower display	Detail	Lower display	Detail	Lower display	Detail	Lower display
PAPER ROUTE : PU			Entrance sensor 1	H: No paper exists. L: Paper exists.	Write sensor	H: No paper exists. L: Paper exists.	Exit sensor	H: No paper exists. L: Paper exists.
TONER SENS	Toner sensor K	H: Light shielded. L: Light reflected.	Toner sensor Y	H: Light shielded. L: Light reflected.	Toner sensor M	H: Light shielded. L: Light reflected.	Toner sensor C	H: Light shielded. L: Light reflected.
CVO UP_LU_FU	Cover-open switch	H: Close. L: Open.			Face-up cover-open sensor	H: Close. L. Open.		
REG L/R_OHP_WG	Color registration sensor L	AD value: ***H	Color registration sensor R	AD value: ***H				
HT THERMISTER	Fuser thermistor upper sensor	AD value: ***H	Fuser thermistor lower sensor	AD value: ***H			Heater frame thermistor	AD value: ***H
HUM_TEMP_DEN ※1	Humidity sensor	AD value: ***H	Temperature sensor	AD value: ***H	Density sensor (K)	AD value: ***H	Density sensor (YMC)	AD value: ***H
BELT_T	Belt thermistor	AD value: ***H						
ID UP/DOWN							ID UpDown Sns	H: Down. L. Up.
TAG COLOR	TAG ID	UID: ***H	TAG ID	UID: ***H	TAG ID	UID: ***H	TAG ID	UID: ***H
DISTONER FULL_BOX	Waste toner sensor	H: Light not reflected. L: Light reflected.						
T1 PE_PNE_CVO_CA	Tray-1 paper-end sensor	H: No paper exists. L: Paper exists.					Cassette sensor	H. Cassette exists. L. Cassette does not exist.
T1 HOP_LIFT	Hopping sensor	H: No paper exists. L: Paper exists.						
T2 PE_PNE_CVO_CA	Tray-2 paper-end sensor	H: No paper exists. L: Paper exists.						
T2 HOP_LF_FED	2nd-Hopping Sns	H: No paper exists. L: Paper exists.			Tray-2 entrance sensor	H: No paper exists. L: Paper exists.		
DUP RA_FNT			Duplex rear sensor	H: Light shielded. L: Light reflected.	Duplex front sensor	H: No paper exists. L: Paper exists.		

5.4.4 Motor and clutch test

The motor and clutch test is used for motor and clutch testing.

1. Enter the self-diagnostic mode (level 1) and, until MOTOR & CLUTCH TEST appears on the upper display, press [2] or [8] ([2] displays the next test option and [8] displays the preceding test option). Then press the [6] button.
2. Press [2] or [8] until the option for a unit to test, which is shown in table 5-4, appears on the lower display ([2] displays the next option and [8] displays the preceding option).

```
MOTOR & CLUTCH TEST
ID MOTOR
```

3. Press the [6] button. The motor and clutch test starts, the unit's the name starting to blink, and the unit being driven for10 seconds (refer to Figure 5-2).

Note: The state for step 2 is restored after the 10-second driving of the unit. The unit is driven again by pressing an appropriate button.

- The clutch solenoid repeatedly turns on and off in normal printing driving (a motor is driven together with the solenoid when it cannot be driven solely because of its mechanical structure). * ID UP/DOWN continues driving until the [#] button is pressed.
- The clutch solenoid is kept driven by holding down the [6] button (for two seconds) to determine a motor.

4. Press the [#] button to stop driving the unit (the display continues indicating the unit).
5. Repeat steps 2 through 4 when necessary.
6. Press [4] to end the test (the state for step 1 is restored).

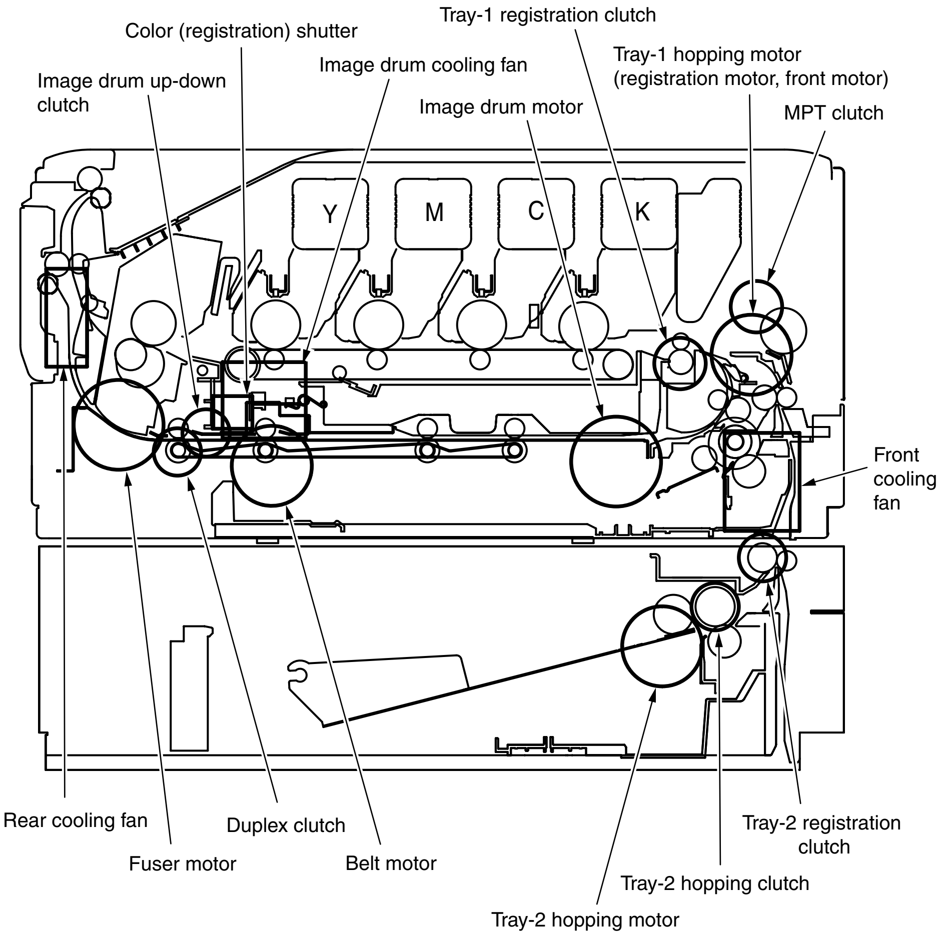

Tray-1 registration clutch
Color (registration) shutter
Tray-1 hopping motor
(registration motor, front motor)
Image drum cooling fan
Image drum up-down
clutch
Image drum motor
MPT clutch
Y
M
C
K
Front
cooling
fan
Rear cooling fan
Duplex clutch
Fuser motor
Belt motor
Tray-2 registration
clutch
Tray-2 hopping clutch
Tray-2 hopping motor

Figure 5-2

Table 5-4

Unit name displayed	Driving restriction	Remarks
ID MOTOR	All of the (black, yellow, magenta and cyan) image drums must be removed.	–
BELT MOTOR	All of the (black, yellow, magenta and cyan) image drums must be removed.	–
FUSER_MOTOR	–	–
REGIST MOTOR	–	–
T1 HOPPING MOTOR	–	–
FRONT MOTOR	–	–
REGIST SHUTTER	–	–
DUPLEX MOTOR	–	–
DUPLEX CLUTCH	–	–
T2 HOPPING MOTOR	–	Option
T2 FEED CLUTCH	–	Option
ID UP/DOWN	The top and front cover must be closed.	–
LV FAN TEST	–	–
ID FAN TEST	–	–
FRONT FAN TEST	–	–

Note: Display while ID UP/DOWN is in progress

```
MOTOR & CLUTCH TEST
ID UP/DOWN       ***
```

***: Identifies the number of executions

Display after holding down REGIST SHUTTER [6] button

```
MOTOR & CLUTCH TEST
SHT              ***
```

***: Identifies the number of executions

5.4.5 Test printing

The test printing is used for printing test patterns stored in the PU. The controller stores the other patterns.

The test printing cannot be used to check print quality.

See chapter 7 for diagnosing problem print images.

1. Enter the self-diagnostic mode (level 1) and, until TEST PRINT appears on the upper display, press [2] or [8] ([2] displays the next test option and [8] displays the preceding option). Then press the [6] button.
2. A setting option applied only to test printing appears on the lower display. Press [2] or [8] until a target option appears ([2] displays the next option and [8] displays the preceding option). Then press the [6] button. [Go to step 5 when the options do not need to be set (left set to their defaults)].
3. The setting option and its setting appear on the upper and lower displays, respectively. Pressing [2] displays the next setting and pressing [8] displays the preceding setting (the setting last displayed is applied. Press [4] to accept the setting and return to step 2. Repeat step 3 when necessary.

```
TEST PATTERN
1
```

Display	Settings	Function
PRINT EXECUTE	–	Starts printing with the press of [6] button, and ends printing with the press of the [#] button.
TEST PATTERN	0	0: Prints a blank page. 1 to 7: - See the next section (pattern printing) - 8 to 15: Each print a blank page.
TEST CASSETTE	TRAY1	Selects a paper source. TRAY2 is not displayed when the tray 2 is not installed.
	TRAY2	
	MPT	
PAGE	0000	Sets the number of test copies to print.
COLOR	ON	Selects color or monochrome printing. * ON and OFF are provided for each color when the setting ON is specified.
	OFF	
DUPLEX	2 PAGES STACK	Performs duplex printing using a two pages layout.
	OFF	Selects turning off duplex printing.
	1PAGES STACK	Performs duplex printing using a one page stack layout.

- A default is in a shaded area (▨). Set settings are enabled only in this test mode (not written into the EEPROM).

Note: PAGE:.............Moves its input digit with [2] or [8]. The setting for this option is incremented by pressing the [*] button, and decremented by pressing the [#] button. Note that, when left set, the setting 0000 endlessly prints pages.

COLOR:..........When set to ON, with the press of the [6] button, displays the information shown below.

Setting option for printing colors:

Moves its input position with [2] or [8]. The setting for each color is switched between ON and OFF by the press of the [*] or [#] button. The panel display is restored to the previous one by pressing [4].

```
COLOR
ON
```

→

```
Y:ON M:ON
C:ON K:ON
```

4. With PRINT EXECUTE displayed on the lower display by the operation in step 2, pressing the [6] button executes test printing by using the setting(s) made in steps 2 and 3.

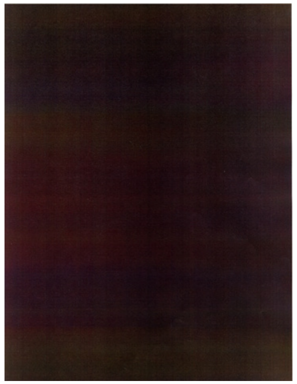
   The test printing is cancelled by pressing the [#] button.

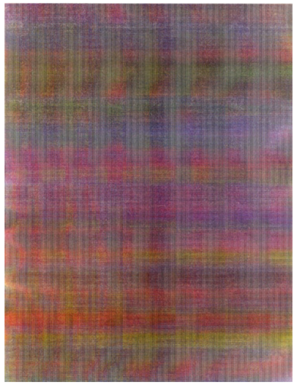
   When detected in starting or performing the test printing, an alarm shown in the Detail section of the following list is displayed on the operator panel, stopping the printing (for error detail, refer to the operator panel display detail in section 7.5.1, where the messages displayed are different from those in PU test printing).

Panel Display	Detail
PAPER END SELECTED TRAY	No paper exists.
SELECTED TRAY IS NOT INSTALLED	The selected tray is not installed.
REMOVE PAPER OUT OF DUPLEX	An internal error of the duplex unit.
INSTALL CASSETTE TRAY OPEN	A cassette is slid out.

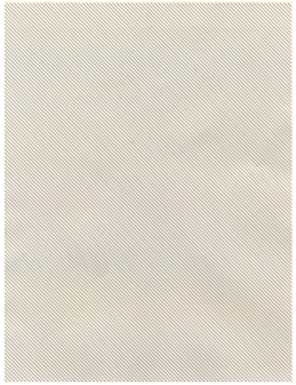
Print patterns (cannot be used for print quality checking)

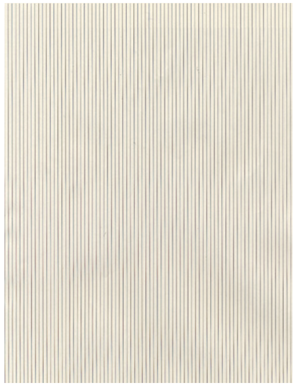
0 and 8 to 15: Each print a blank page.

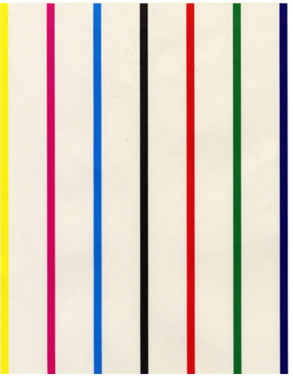

Pattern 1


Pattern 2

Pattern 3


Pattern 4


Pattern 5


Pattern 6

Pattern 7

Note: Solid black print (pattern 7) is included in the local printing function. An offset occurs when it is output at 100% in each color. To prevent this, the number of the colors to print concurrently to produce solid print copies of the No. 7 needs to be limited not more than two by making print color settings as instructed in step 3.

- The following message appears during printing:

```
P=***
W=***
```

P: Number of test print pages
W: Wait time

- The displays are switched by pressing [2].

```
T=*** U=***[###]
H=***%L=***[###]
```

U: Three asterisks (***) identifies a measured upper heater temperature (in Celsius). Three sharp signs in square brackets ([###]) identifies a target print temperature (in Celsius).
L: Three asterisks (***) identifies a measured lower heater temperature (in Celsius). Three sharp signs in square brackets ([###]) identifies a read lower thermistor AD value (in hex).
T: A measured ambient temperature (in Celsius).
H: A measured ambient humidity (in percent figures).

- The displays are switched by pressing [2].

```
KTR=*.** YTR=*.**
MTR=*.** CTR=*.**
```

YTR, MTR, CTR and KTR indicate the set transfer voltage values for colors, respectively (in kV).

- The displays are switched by pressing [2].

```
KR=*.** YR=*.**
MR=*.** CR=*.**
```

KR: A black transfer roller resistance value (in uA).
YR: A yellow transfer roller resistance value (in uA).
MR: A magenta transfer roller resistance value (in uA).
CR: A cyan transfer roller resistance value (in uA).

- The displays are switched by pressing [2].

```
ETMP=***UTMP=***
REG=****EXT=***
```

ETMP: A parameter for correction of constant hopping motor speed (an ambient temperature) (in decimal).
UTMP: A parameter for correction of constant fuser motor speed (a target fusing temperature) (in decimal).
REG: A hopping motor constant-speed timer value (a set input/output value) (in hex).
EXT: A fuser motor constant-speed timer value (a set input/output value) (in hex).

- The displays are switched to the following by pressing [2].

```
ID=****

```

ID: An image drum motor constant-speed timer value (a set input/output value) (in hex).

- The displays are switched pressing [2].

```
BELT=****
FRM [***] ( xxx )
```

BELT: A belt motor constant-speed timer value (a set input/output value) (in hex).
FRM: Three asterisks in square brackets ([***]) identifies a read frame thermistor AD value (in hex).
Three cross signs in brackets ((xxx)) identifies a frame temperature (in Celsius).

- The displays are switched by pressing [2].

```
DB:k**y**m**c**

```

DB: A developing voltage setting table identification number (in hex).

- The displays are switched by pressing [2].

```
TR1:k**y**m**c**
```

```
TR2:k**y**m**c**
```

TR1: A transfer voltage parameter VTR1 table identification number (in hex).
TR2: A transfer voltage parameter VTR2 table identification number (in hex).

- The displays are switched by pressing [2].

```
TROFF:**
```

```
BELT xxx(***)
```

TROFF: A transfer off voltage setting table identification number (in hex).
BELT: Three cross signs and a minus sign (xxx-) identifies a read belt thermistor AD value (in hex).
Three asterisks and a minus sign (***-) identifies a belt temperature (in hex).

5. Repeat steps 2 through 4 when necessary.
6. Press the [#] button to end the test (the state for step 1 is restored).

5.4.6 Color registration adjustment test

The color registration adjustment test is used for adjusting color registration or investigating the causes of color misregistration.

Chapter 2 for an overview of color registration adjustment should be followed for recovery from an error developed by the test.

1. Enter the self-diagnostic mode (level 1) and, until the following message appears, press [2] or [8].

```
REG ADJUST TEST

```

2. Press the [6] button, and the following message appears. Press [2] or [8] until a target option appears.

```
REG ADJUST TEST
REG ADJ EXECUTE
```

3. Press the OK button, and the displayed test option is performed.

When REG ADJ EXECUTE is executed:

① A color registration adjustment test starts (the ONLINE lamp starts blinking).

② When the test ends, the upper display shows the result of the test (OK or an error name), and the lower display shows ****RESULT.

```
OK
REG ADJ RESULT
```

Pressing [2] displays the next test result. Pressing the [8] displays the preceding test result. Pressing [4] restores the state for step 2.

Remark: While the printer is initialized or issues an alarm or the cover is open, it displays the following message:

```
NG
REG ADJ RESULT
```

③ Pressing the [#] button during the test cancels the test (turning on the ONLINE lamp), restoring the state for step 2.

When REG ADJ RESULT is executed:

Same button operations as ② used when REG ADJ EXECUTE is executed.

When BLT REFLECT TEST is executed:

① A color registration adjustment belt reflection test starts (the ONLINE lamp starts blinking).

② When the test ends, the upper display shows the result of the test (OK or an error name), the lower display shows ****RESULT.

```
OK
BLT REFLECT RSLT
```

Pressing [2] displays the next test result. Pressing [8] displays the preceding test result. Pressing [4] restores the state for step 2.

③ Pressing the [#] button during the test cancels the test (turning on the ONLINE lamp), restoring the state for step 2.

When BLT REFLECT RSLT is executed:

Same button operations as used when BLT REFLECT TEST is executed.

Remark: While the printer is initialized or issues an alarm or the cover is open, it displays the following message.

```
NG
REG REFLECT RSLT
```

4. Repeat steps 2 and 3 when necessary.
5. Press [4] to end the test (the state for step 1 is restored).

Color registration adjustment test items

Display	Detail
REG ADJ EXECUTE	Executes color registration adjustment.
REG ADJ RESULT	Displays the result of color registration adjustment.
BLT REFLECT TEST	Judges whether color registration adjustment belt reflection is proper or not
BLT REFLECT RSLT	Displays the result of color registration adjustment belt reflection judgment.

5.4.7 Density adjustment test

The density adjustment test is used for performing a density adjustment function test and displaying the result of it to judge whether the density adjustment mechanism is proper.

Chapter 2 for an overview of density adjustment should be followed for recovery from errors.

1. Enter the self-diagnostic-mode and, until the following message appears, press [2] or [8].

```
DENS ADJ TEST

```

2. Press the [6] button, and the following message appears. Press [2] or [8] until a target option appears.

```
DENS ADJ TEST
DENS ADJ EXECUTE
```

3. Press the [6] button, and the displayed test option is performed:

When DENS ADJ EXECUTE is executed:

① A density adjustment test starts (the ONLINE lamp starts blinking).

② When the test ends, the upper display shows the result of the test (OK or an error name), the lower display shows ****RESULT.

```
OK
DENS ADJ RESULT
```

Pressing [2] the next test result. Pressing [8] displays the preceding test result. Pressing [4] restores the state for step 2.

③ Pressing the [#] button during the test cancels the test (turning on the ONLINE lamp), restoring the state for step 2.

When DENS ADJ RESULT is executed:

Same button operation as ② used when REG ADJ EXECUTE is executed.

When DENS ADJ PAR-SET is executed:

The setting for the density adjustment parameter is displayed.

When AUTO CALIBRATION is executed:

① The density sensor sensitivity correction value is automatically set (the ONLINE lamp starts blinking).

② When the test ends, the upper display shows the result of the test (OK or an error name), the lower display shows ****RESULT.

```
OK
DENS ADJ RESULT
```

Pressing [2] displays the next test result. Pressing [8] displays the preceding test result. Pressing [4] restores the sate for step 2.

③ Pressing the [#] button during the test cancels the test (turning on the ONLINE lamp), restoring the state for step 2.

Remark: While the printer is initialized or issues an alarm or the cover is open, it displays the following message:

```
NG
DENS ADJ RESULT
```

4. Repeat step 3 when necessary.
5. Press [4] to end the test (the state for step 1 is restored).

Density adjustment test items

Display	Detail
DENS ADJ EXECUTE	Executes density adjustment.
DENS ADJ PAR-SET	Sets a control value for auto density adjustment.
DENS ADJ RESULT	Displays the result of density adjustment.
AUTO CALIBRATION	Automatically sets a density sensor sensitivity correction value.
AUTO CALIB BLACK	Automatically sets a black density sensor sensitivity correction value.

5.4.8 Consumable counter display

The consumable counter display is used for viewing the usage of consumables.

1. Enter the normal self-diagnostic mode and, until CONSUMABLE STATUS appears, press [2] or [8] ([2] displays the next test option and [8] displays the preceding test option). Then press the [6] button.
2. Press [2] or [8], and the usage of each consumable appears (the [*] or [#] button is disabled).
3. Press [4] to end the option (the state for step 1 is restored).

Upper display	Lower display	Format	Unit	Detail
K-ID UNIT	********IMAGES	Decimal	Images	Each display the number of turns performed to date after the installation of a new image drum unit, converted on an A4 and three-pages-per job basis.
Y-ID UNIT	********IMAGES	Decimal	Images	
M-ID UNIT	********IMAGES	Decimal	Images	
C-ID UNIT	********IMAGES	Decimal	Images	
FUSER UNIT	********PRINTS	Decimal	Prints	Displays the number of pages printed to date after the installation of a new fuser unit.
TR BELT UNIT	********IMAGES	Decimal	Images	Displays the number of pages printed to date after the installation of a new belt unit.
K-TONER (FULL)	********%	Decimal	%	Each display the usage of toner of a color.
Y-TONER (FULL)	********%	Decimal	%	
M-TONER (FULL)	********%	Decimal	%	
C-TONER (FULL)	********%	Decimal	%	
K-STC MODE CNT	********TIMES	Decimal	Times	Each display the print dot count of toner of a color (life counter value after the printer goes into operation).
Y-STC MODE CNT	********TIMES	Decimal	Times	
M-STC MODE CNT	********TIMES	Decimal	Times	
C-STC MODE CNT	********TIMES	Decimal	Times	
K OVER RIDE CNT	********TIMES	Decimal	Times	Each display the extension life count of a toner cartridge.
Y OVER RIDE CNT	********TIMES	Decimal	Times	
M OVER RIDE CNT	********TIMES	Decimal	Times	
C OVER RIDE CNT	********TIMES	Decimal	Times	

5.4.9 Print counter display

The print counter display is used for viewing print counter values.

1. Enter the self-diagnostic mode and, until PRINTER STATUS appears, press [2] or [8] ([2] displays the next test option and [8] displays the preceding test option). Then press the [6] button.
2. Press [2] or [8], and each count is printed (the [*] or [#] button is disabled).
3. Press [4] to end the option (the state for step 1 is restored).

Upper display	Lower display	Format	Unit	Detail
K-IMPRESSIONS	********IMAGES	Decimal	Images	Each display the number of a color's pages printed.
Y-IMPRESSIONS	********IMAGES	Decimal	Images	
M-IMPRESSIONS	********IMAGES	Decimal	Images	
C-IMPRESSIONS	********IMAGES	Decimal	Images	
TOTAL SHEET CNT	********COUNTS	Decimal	Prints	Displays the total number of pages printed.

5.4.10 Factory/Shipping mode setting

The Factory/Shipping mode setting is used for switching from the Factory to Shipping mode.

1. Enter the self-diagnostic mode and, until the following message appears, press [2] or [8].

```
FACTORY MODE SET

```

2. Press [2] or [8], and the following message appears. Press [2] or [8] until an option to set (refer to the table shown below) appears.

```
FACTORY MODE
SHIPPING MODE        *
```

3. By pressing the [6] button with the option on the display, a setting for the option can be selected.
4. Hold down the [6] button (for three seconds) with the display showing the setting to set. The setting is stored in the EEPROM. The state for step 2 is restored.
5. Repeat steps 2 through 4 when necessary.
6. Press [4] to end the option (the state for step 1 is restored).

Display	Settings	Function
FACTORY MODE	FACTORY MODE	Establishes the Factory mode (a fuse-cut disabling mode).
	SHIPPING MODE	Deselects the Factory mode to enable the fuse-cut function.
FUSE INTACT Note: Six asterisks (******) identifies INTACT or BLOWN.	BELT UNIT ******	Displays the fuse status of the transfer belt unit.
	FUSE UNIT ******	Displays the fuse status of the fuser.
	ID UNIT ******	Displays the fuse status of an image drum unit.

5.4.11 Self-diagnostic function setup

The self-diagnostic function setup is used for enabling or disabling the error detection by sensors. The detection can be enabled or disabled temporarily for troubleshooting. Allowing for setting engine operation options for which expert knowledge is required to be handled, these self-diagnostic setup should be used carefully.

Be sure to restore the default settings of used options of the self-diagnostic function setup.

1. Enter the self-diagnostic mode and, until the following message appears, press [2] or [8].

```
SENSOR SETTING

```

2. Press [2] or [8], and the following message appears. Press [2] or [8] until an option to set (refer to the table shown below) appears.

```
TONER SENSOR
ENABLE          *
```

3. A setting can be selected on the lower display by pressing the [6] button. [2] displays the next setting and [8] displays the preceding setting.
4. Hold down the [6] button (for three seconds) with the display showing the setting to set. The setting is stored in the EEPROM. The state for step 2 is restored.
5. Repeat steps 2 through 4 when necessary.
6. Press [4] to end setting the option (except where not in step 4) (the state for step 1 is restored).

Display	Settings	Behavior	Function
TONER SENSOR	▨ ENABLE	Performs detection.	Enables or disables the toner sensor operation.
	DISABLE	Does not perform detection.	
BELT UNIT CHECK	▨ ENABLE	Performs checking.	Enables or disables the belt installation checking operation.
	DISABLE	Does not perform checking.	
ID UNIT CHECK	▨ ENABLE	Performs checking.	Enables or disables the image drum installation checking operation.
	DISABLE	Does not perform checking.	
UP/DOWN SENSOR	▨ ENABLE	Performs detection.	Enables or disables the image drum up-down sensor operation.
	DISABLE	Does not perform detection.	
REG ADJUST ERROR	ENABLE	Has the printer to pause.	Enables or disables the error display based on a color misregistration detection value.
	▨ DISABLE	Does not have the printer to pause.	
DRUM OVER LIFE	▨ STOP	Does not extend life.	Sets whether to enable or disable extending image drum life at the end of the life.
	CONTINUANCE	Extends life.	
WR POINT REV TBL= **H±*.***mm	00H~FFH	A correction value.	Adds a correction value for the default writing point.
BOTTOM WRT POINT TBL= **H±*.***mm	00H~FFH	A tear-off value.	Sets a tear-off length from the bottom edge of paper.

Default is in hatched area

5.4.12 LED head serial number display

The LED head serial number display is used for viewing whether downloaded data about LED heads agrees with the serial numbers marked on the LED heads.

1. Enter the self-diagnostic mode and, until LED HEAD DATA appears, press [2] or [8]. [2] displays the next test option and [8] displays the preceding test option). Then press the OK button.
2. Press [2] or [8], and each of the K, Y, M and C LED head data serial numbers appears.
3. Press [4] to end the option (the state for step 1 is restored).

```
K ** ** ** ****
xxxxxxxxxxxxx
```

** ** ** ****　: A revision number.
xxxxxxxxxxxxx : A serial number

5.5 Switch pressing function when power supply is turned on

When power supply of printer is turned on, the functions of usable switches are as follows. And, the switches below are effective when pressed before LED is lighted in the special start confirming pattern.

(1) [1] key and [▶] key

Despite of warning/error, always start by online mode (factory support function).

(2) [▼] key and [STOP] key

Initialize NIC settings to Factory defaults.
When executing this initialize, all network settings will be returned to Factory defaults.
It's not use in normal condition.

5.6 Settings after Parts Replacement

The necessary adjustments after the parts exchange are explained as follows.

Replaced Part	Adjustment
LED Head	Not required.
Image Drum Cartridge	Not required.
Fuser Unit	Not required.
Belt Unit	Not required.
Main (CU/PU board(CLP))	Copy the EEPROM information; utility is required
SU board(MHC)	Copy the setting parameter of Scanner; utility is required. Setup of Country Code for Fax (mandatory)
Scanner Unit (Maintenance)	

5.6.1 Notes on CU/PU board replacement

1. When the EEPROM on a board to remove can be accessed (when SERVICE CALL 104 [Engine EEPROM Error] or 40 [EEPROM Error] is not displayed):
    (1) Remove information from the EEPROM in the PU block, and setting information from the EEPROM in the CU block, of the board, and temporarily store them onto an HDD of a computer, by using the board replacement function of Maintenance Utility (Maintenance Utility Operating Manual, section 2.4.1.1.9 about board replacement functionality).

    (2) By using the board replacement function, copy the information and setting information into the EEPROM of a board to replace with.

    (3) When only the information or setting information can be removed from the board to replace, copy it into the EEPROM of the replacement board by using the board replacement function. With the board replacement function, separately configure the other information, which cannot be removed. Perform PU-block serial-number setting (Maintenance Utility Operating Manual, section 2.4.1.1.9.5), and make a change to the Shipping mode (Maintenance Utility Operating Manual, section 2.4.1.1.9.6), in setting windows when the information cannot be removed. Configure CU-block serial number information (Maintenance Utility Operating Manual, section 2.4.1.1.9.4) when the setting information cannot be removed.

Note! When removing or writing information from/into the EEPROM by using Maintenance Utility, use the procedure shown below to place the printer to the Forced ONLINE mode before accessing the EEPROM. Even in the forced ONLINE mode, the printer provides an error indication when having an error.

1. The printer displays ONLINE when operating properly, and provides an error indication when having an error, where the printer is internally online, being ready to communicate.

2. When the EEPROM on a board to remove cannot be accessed:

    When the operator panel displays SERVICE CALL 104 (Engine EEPROM Error) for, or data cannot be read from the EEPROM of, a board to remove, follow the following procedure to perform operation by using Maintenance Utility after the board is replaced with a new one:

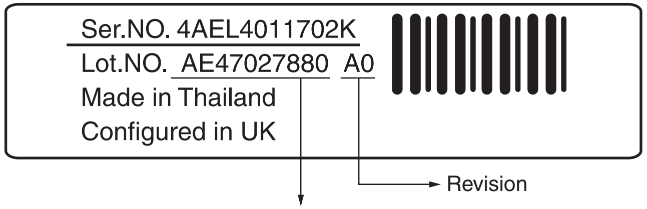
    (1) [When facing OEL]

    (1-1) Set the PU serial number

    (Maintenance utility operation manual, Section 2.4.1.2, PU circuit board setting)
    SAP serial number can be applied to the device. The SAP serial number is displayed in the highest rung of the serial number label. It is a 12-digit number including production place (2 digits), production year (2 digits), sequence number (6 digits) and revision number (2 digits).

    - PU serial number is a 10-digit number which is basically the same as SAP serial number except that it has no the 2-digit revision number.
    - Set on the menu of [Section 2.4.1.1.2.1, PU serial number setting] of [Section 2.4.1.1.2 PU circuit board setting function].

- If you want to specify the PU serial number, please add a "0" (a normal-width zero) then input the 11-digit number. (Please notice that when read out, the number will be 10 digits.)
  As shown in the following image, on the menu of [PU serial number setting], eliminate the 2-digit revision number then add a normal-width zero to the 10-digit number and input it.



Add one-byte 0 to the top of 10-digit figure of Lot.NO.
Set "0AE47027880" in the setting screen.

Figure of Serial No. label image (labeled in UK Factory)

- PU serial number will be output to the Printer Serial Number column in the header of Status Page. For this reason, check of PU serial number is performed by printing Status Page.
- After the configuration in the UK factory, when facing OEL, the PU serial number is taken as Lot Number and shown in the Lot Number: column of the last line which is in the header of the Status Page.

(1-2) Set the CU serial number

SAP serial number can be applied to the device. The SAP serial number is displayed in the highest rung of the serial number label. It is a 12-digit number including production place (2 digits), production year (2 digits), sequence number (6 digits) and revision number (2 digits).

- CU serial number is given an original number which is within 12 digits in the UK factory.
- Please notice that if you set the CU serial number, the menu setting in CU will be reset (back to the default setting). (For reference, Maintenance utility operation manual)
- On the menu of [Section 2.4.1.1.4.3, Serial number information setting] of [Section 2.4.1.1.4 CU circuit board setting function], set the [Choose printer serial number] to [CU serial number] and [Output mode] to [Show both].
- If you want to specify the CU serial number, please input the 12-digit number. (When read out, it will be 12 digits, too.)

Input 12 digits for Ser. NO. Input "4AEL4011702K".

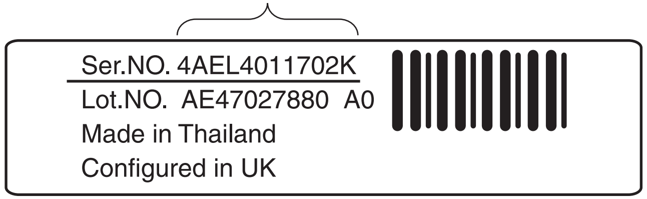


Figure of Serial No. label image (labeled in UK Factory)

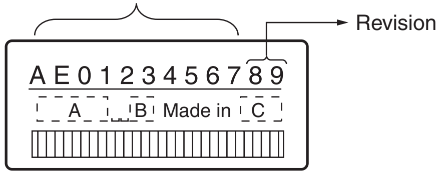
- CU serial number is shown in the Printer Serial Number Column in the header of Status Page. Therefore, the confirmation of the CU serial number after the change can be done by printing the Status Page.
- The PU serial number is shown in the Lot Number: column of the last line which is in the header of the MenuMap.

(2) [When not facing OEL]

(2-1) Set the PU serial number

(Maintenance utility operation manual, Section 2.4.1.2, PU circuit board setting) SAP serial number can be applied to the device. The SAP serial number is displayed in the highest rung of the serial number label. It is a 12-digit number including production place (2 digits), production year (2 digits), sequence number (6 digits) and revision number (2 digits).

- PU serial number is a 10-digit number which is basically the same as SAP serial number except that it has no the 2-digit revision number.
- Set on the menu of [Section 2.4.1.1.2.1, PU serial number setting] of [Section 2.4.1.1.2 PU circuit board setting function].
- If you want to specify the PU serial number, please add a "0" (a normal-width zero) then input the 11-digit number. (Please notice that when read out, the number will be 10 digits.)
  As shown in the following image, on the menu of [PU serial number setting], eliminate the 2-digit revision number then add a normal-width zero to the 10-digit number and input it.



Add one-byte 0 to the top of 10-digit figure of 12-digit SAP serial number to set.
Set "0AE01234567" in the setting screen of PU serial number.

Figure of Serial No. label image

- PU serial number will be output to the Printer Serial Number column in the header of Status Page. For this reason, check of PU serial number is performed by printing
  Status Page.
- After the configuration in the UK factory, when facing OEL, the PU serial number is taken as Lot Number and shown in the Lot Number: column of the last line which is in the header of the Status Page.

(2-2) Set the CU serial number

CU serial numbe setting is unnecessary When not facing OEL.

(3) Change to Shipping mode (section 2.4.1.1.10.4 of Maintenance Utility Operating Manual)

The printer is placed in the Factory mode after the CU/PU board is replaced with a new one. Switch the printer to the Shipping mode.

- Use the window for the Factory/Shipping mode described section 2.4.1.1.10.4 in Maintenance Utility section 2.4.1.1.10 about board setting functionality

Note! Note that replacing the EEPROM (the engine control board) clears life information about units, including the belt, toner and image drums, causing errors in managing the lives of the units until the units are replaced. Below is the counts cleared with such CU/PU board replacement. When the units are replaced with new ones, their respective counts except for Total Sheets Fed are cleared, the errors being corrected.

Item	Description	Count description
Fuser unit	A fuser life count.	A value converted on an A4 page basis from the number of pages printed to date after installation of a new fuser unit.
Belt unit	A belt unit life count.	A value converted on an A4 page basis from the number of pages printed to date after installation of a new belt unit.
Image drum unit	Each the image drum unit life count for a color.	A value converted on an A4 page basis from the number of pages printed to date after installation of a new image drum unit.
Total number of sheets	A printer life count.	The total number of sheets fed.
Print black Print yellow Print magenta Print cyan	Each the number of pages printed with an image drum.	The number of pages printed after installation of a new image drum unit.

5.6.2 Notes on SU board(MHC)/Scanner Unit replacement

1. Set the Scanner parameter when replacing the SU board(MHC)/Scanner Unit :

   Before replacing the SU board(MHC)/Scanner Unit, try to get the scanner setting parameters from the board by using tthe SU board(MHC)/Scanner Unit replacement function of Maintenance Utility, if it is still able to be accessed by Maintenance Utility.

   After replacing the SU board(MHC)/Scanner Unit to new one, restore the scanner setting parameters to new one by using Maintenance Utility. For further information, refer the instruction of the manual of Maintenance Utility.

2. Set the country code of Fax:

   When replacing the SU board(MHC)/Scanner Unit, it is needed to setup the country code of Fax.

   Because the Fax module is kept the internal parameter for transmission into the FLASH memory of the SU board(MHC)/Scanner Unit, and the setting has to match the CU/PU board(CLP). The following is the instruction of the setting procedures after replacing the SU board(MHC)/Scanner Unit (before replacing, don't need any backup process for this).

(1) After replacing the SU board(MHC)/Scanner Unit, turn on the unit.

(2) Press "Setting" key and enter "Admin Setting".

(3) Select "Fax Setup" → "Fax Setting" → "Country Code"

(4) Change the country code from the current setting to other temporarily ;

i.e.) if Country Code = "INTL", change "U.S.A." or "United Kingdom", etc
After exiting the menu, the unit will reboot, automatically.

(5) Press "Setting" key and enter "Country Code" item, again. ("Fax Setup" → "Fax Setting" → "Country Code")

(6) Change the country code from the temporary setting to an expected ;

i.e.) Country Code = "U.S.A" → "INTL", in case when the setting changed "INTL" to "USA" at Step(4), temporarily.

After exiting the menu, the unit will reboot, automatically.

(7) When going to "Ready", the country code has been synchronised between the SU board(MHC)/Scanner Unit and the CU/PU board(CLP).

5.7 Manual density adjustment operation

MFP is shipped with "Automatic" set for the auto density adjustment mode. When "Manual" is set for the mode by a user, the printer may print density out of adjustment while being used. Perform manual density adjustment operation when the printer has a density trouble.

Note! The manual density adjustment operation must be performed with the printer in a static state. Do not perform it while the printer warms up.

(1) Press [2] or [8] more than one time. Press the [6] button when COLOR MENU appears.
(2) [2] or [8] to display ADJUST DENSITY EXECUTE.
(3) Press the [6] button.

Auto density adjustment starts.

6. REGULAR MAINTENANCE

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6.1 Recommended substitutes

It is recommended by our company that only heavy users should change the following parts.

(If not changed, the printing quality cannot be guaranteed and failures may arise.)

Part Name	Parts No.
Frame Assy. - Retard	44384701
Roller-Assy. - Hopping	44483301
Roller-Assy. - Pick Up	44483601
Frame Assy. - Separator	43922402
Roller-Assy. - MPT	43922301

Note! 1. Consumables (image drum, toner cartridge, fuser and belt unit) are not included.
2. Power supply and main circuit board, etc. are not included.

The above mentioned regular parts exchange should be done by users.

6.2 Cleaning

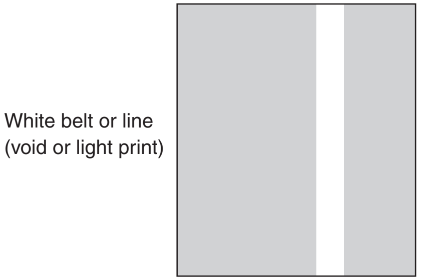
If necessary, users should use soft cloths and minitype cleaner to clean the inside and outside of the machine.

Note! Don't touch image drum terminals, LED lens array and LED head connector.
Do not use benzin, thinner and alcohol.

6.3 Cleaning LED lens array

If there appear white vertical lines or white stripe (white defection, light printing), please clean your LED lens array.

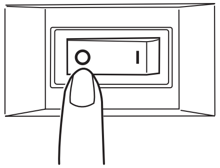
Note! Make sure to use soft tissues to clean the LED lens array.


White belt or line
(void or light print)

Cleaning LED head

If there appear line breaks or white lines, or the letters and characters are blurred, please clean LED head.

(1) Switch off the power supply.

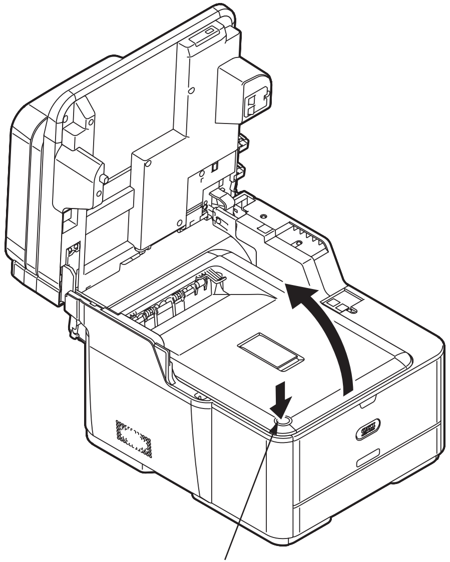


(2) Lift the scanner.

(3) Press OPEN button and open the top cover.

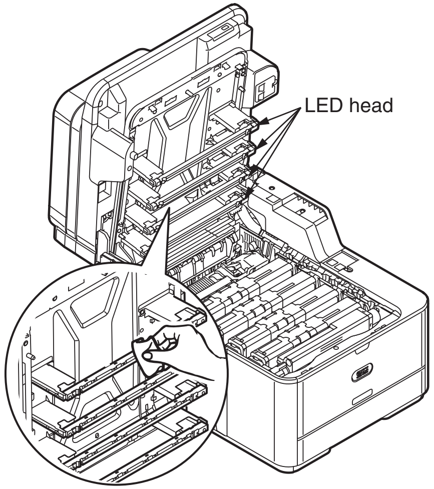
⚠**Caution**	Personal injuries may occur.	⚠

The fuser unit is extremely hot. Do not touch it.



(4) Lightly wipe the lens (4 points) of the LED head with soft tissues.

Note! Do not use solvents as methyl alcohol or thinner, as they might cause damage to the LED head.



(5) Close the top cover.

(6) Lower the scanner.

6.4 Cleaning the Paper Feed Roller

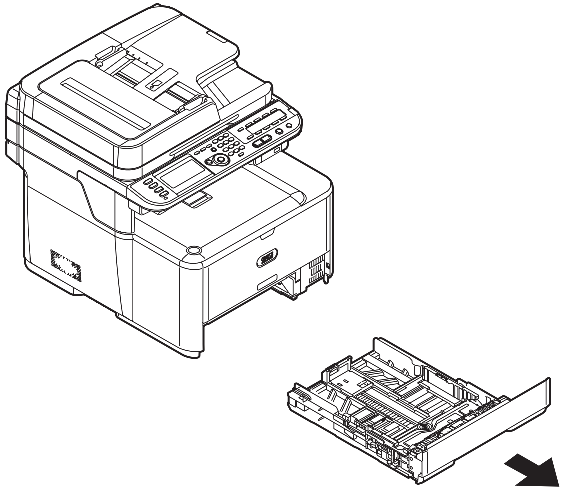
If there appear vertical lines on the printing side, please clean the pick-up roller.

Note! In order not to cause damage to the surface of roller, please use soft cloths to clean it.

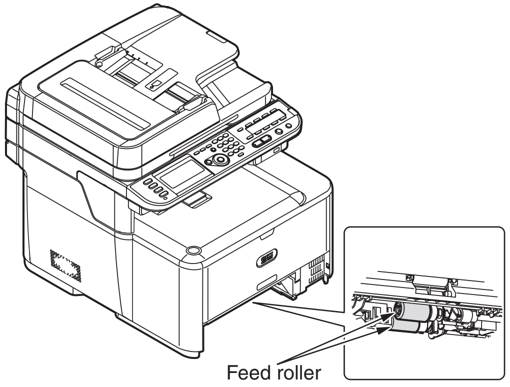
Cleaning paper Feed Rollers and pad

Note! The following images use tray 1 as an example, but the same procedure applies to tray 2.

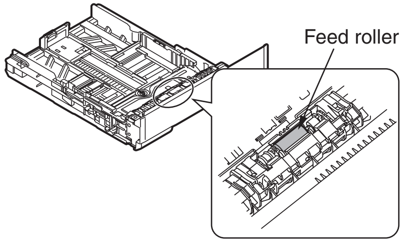
(1) Pull out the paper cassette.



(2) Wipe the paper feed rollers inside the machine with a soft cloth lightly moistened with water.



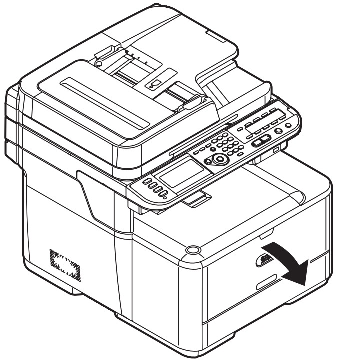
(3) Wipe the paper feed roller on the paper cassette.



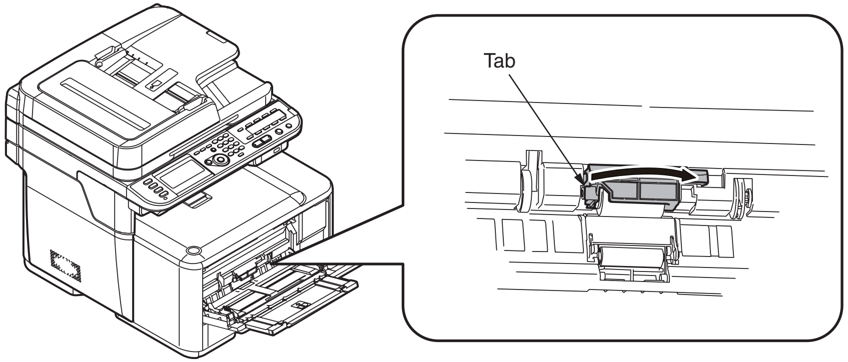
(4) Push the paper cassette back into the tray.

6.5 Cleaning the Paper Feed Rollers for MP Tray

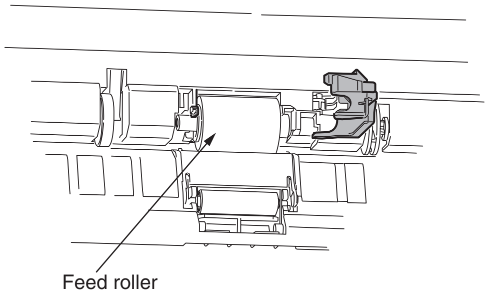
(1) Open the MP tray.



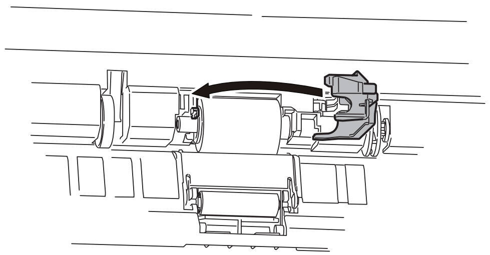
(2) While pressing the tab of the paper feed roller cover to the right, open the cover.



(3) Wipe the paper feed roller with a soft cloth lightly moistened with water.



(4) Close the cover of the paper feed roller.



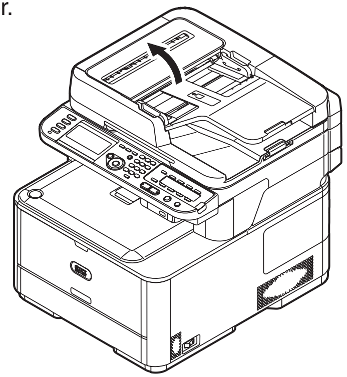
(5) Close the MP tray.

6.6 Cleaning Rollers in the ADF

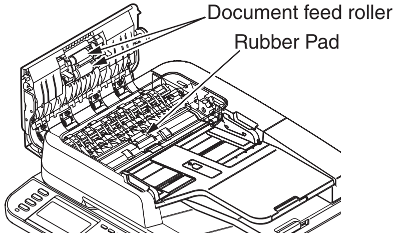
If the document feeding rollers in the ADF are contaminated with ink, toner particles or paper dust, documents and outputs get dirty and a paper jam may occur. To prevent this, it is recommended to clean the rollers once a month.

(1) Thrn off the power of MFP.

(2) Open the ADF cover.



(3) Wipe the document feeding rollers with a soft cloth lightly moistened with water.
Wipe the whole surface of the roller and rubber pad while turning it with your hand.



Note! If the rollers get too dirty, wipe them with a soft cloth lightly moistened with neutral detergent, and then wipe it again with a soft cloth lightly moistened with water.

(4) Close the ADF Cover.

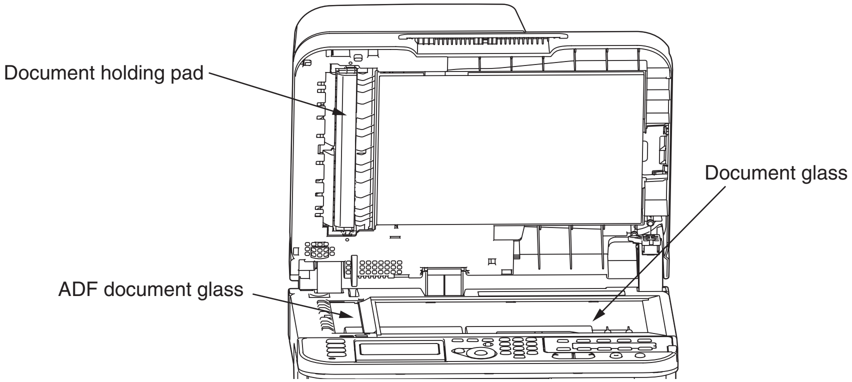
6.7 Cleaning the Document Glass

It is recommended to clean the document glass once a month to maintain image quality of the printouts.

(1) Open the document glass cover.

(2) Wipe the document holding pad, document glass and ADF document glass surface with a soft cloth lightly moistened with water.

Caution! Do not use benzine, thinners or alcohol as a cleaning agent. They may damage the plastic parts of the MFP.


Document holding pad
Document glass
ADF document glass

(3) Close the document glass cover.

7. TROUBLESHOOTING PROCEDURES

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7.1 Precautions prior to repair

(1) Confirm the basic check items indicated in the User's Manual.

(2) Through hearing from the user, obtain information, as far in detail as possible, on the situation concerning the fault.

(3) Inspect the printer in a condition close to the actual situation in which the fault occurred.

7.2 Items to be checked prior to taking action on abnormal images

(1) Check to see if the printer is operated in an adequate environment.

(2) Check to see if the consumables (toner, drum cartridges) are replaced properly.

(3) Check to see if the right paper is used. See the paper specifications.

(4) Check to see if the drum cartridges are installed properly.

7.3 Precautions when taking action on abnormal images

(1) Do not bring your hand or any object in contact with the surface of the OPC drum.

(2) Do not expose the OPC drum to direct sun.

(3) Do not touch the fuser unit, which can be very hot.

(4) Do not expose the image drums to light for over five minutes at the room temperature.

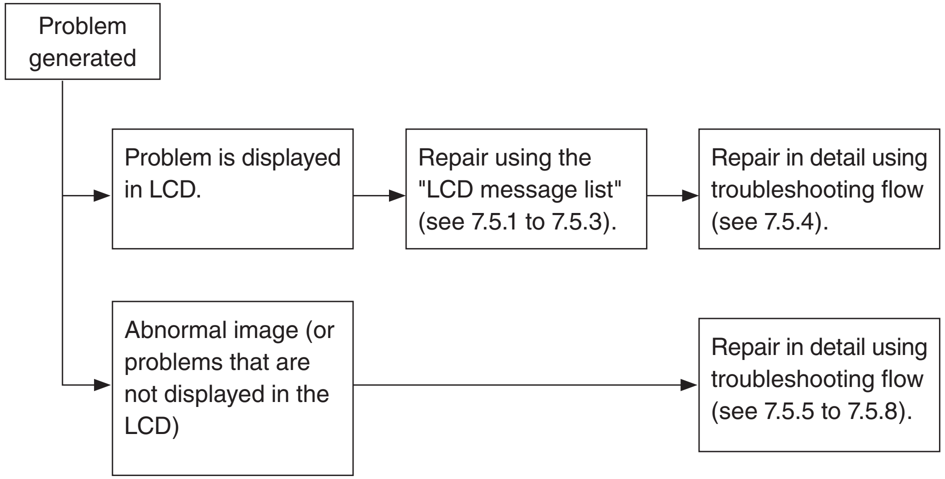
7.4 Preparations for troubleshooting

(1) Display of LCD

The breakdown situation of this machine is display in LCD.
Do an appropriate trouble repair based on information displayed in LCD.

7.5 Troubleshooting method

If a trouble occurs in the printer, search for it by the following procedure:


Problem generated
Problem is displayed in LCD.
Repair using the "LCD message list" (see 7.5.1 to 7.5.3).
Repair in detail using troubleshooting flow (see 7.5.4).
Abnormal image (or problems that are not displayed in the LCD)
Repair in detail using troubleshooting flow (see 7.5.5 to 7.5.8).

7.5.1 LCD messages list

Initializing & Shutdown

No.	Category	PJL Status Code	Error Warning		Description
1	Initializing	-	1 2 3 4 5	Menu Resetting	Indicates that EEPROM of the controller side is being reset. The condition that EEPROM is reset includes the followings. - Changes of CU ROM (when disagreement of CU F/W version is detected) - Changes of destination channel - Compulsive initialization of EEPROM ("Service Menu"-"System Maintenance"-"ALL RESET") - Reset by a FactoryDefaults operator of PS - OEM set of PJL command
2	Initializing	-	1 2 3 4 5	Wait a moment. Network initializing ...	The network is in initializing. If this status occurred during the unit initialinzing the message is displayed by English.

No.	Category	PJL Status Code	Error Warning		Description
3	Initializing	-	1 2 3 4 5	Flash Memory Format	Displays that Flash memory is being formatted. It is displayed it when Resident/Option Flash memory not fomented are detected, or "Service Menu"-"System Maintenance"-"Format Flash Memory" of a system maintenance menu is performed. The function mentioned above is secret to users. Therefore, this status does not occur in a user environment.
4	Initializing	-	1 2 3 4 5	Checking File System	Displays that SD Card file system is being checked. Process Check of File System is valid to start from "Management"-"Storage Maintenance Setup" of Admin Setup Menu, or "Check File System" of Boot Menu.
5	Initializing	-	1 2 3 4 5	Erasing Disk	Indicates that the SD Card is being erased. Erase process of the hard disk is valid to start from "Management"-"Storage Maintenance Setup"-"Erase SD Memory Card " of Admin Setup Menu.
6	Initializing	-	1 2 3 4 5	%STORAGE% Error: %ERRCODE% To %STORAGE% format, select [Format] To shut down, select [Cancel]	%ERRCODE% : 0 Indicates that the unformatted storage is detected during the initializing. %ERRCODE% : 250 Indicates that machine detected broken file about secure print. Needs to format once again. [Format] pressed, Storage format is started and the unit is rebooted automatically. [Cancel] pressed, the unit is shut down. -------------------------------- The following is changed by a status parameter. %STORAGE% : HDD SD Card %ERRCODE% : Error Code
7	Shutdown	-	1 2 3 4 5	Shutdown in progress.	It is shown that a unit is shutting down.

Normal

No.	Category	PJL Status Code	Error Warning		Description
1	Normal	40988	1 2 3 4 5	PU downloading ...	Downloading PU F/W (This is not user-level error) This function is secret to users. Therefore, this status does not occur in a user environment. It occurs during downloading firmware of option tray.
2	Normal	-	1 2 3 4 5	Updating ROM. Please keep power ON.	Downloading scanner unit (Scanner, Fax, Panel) FW.
3	Normal	40825	1 2 3 4 5	Wait a moment. Message Data processing ...	Indicates that message data to be updated is being processed.
4	Normal	40826	1 2 3 4 5	Wait a moment. Message Data writing ...	Indicates that message data to be updated is being written.
5	Normal	40827	1 2 3 4 5	Power OFF/ON Message Data written OK.	Indicates that message data to be updated has been written successfully.
6	Normal	40828	1 2 3 4 5	Please check data. Message Data Write Error %CODE%	Indicates that writing of message data to be uploaded has been failed. %CODE% is a decimal value (one digit) and represents the cause of failure in writing. = 1 … FAIL: Other errors. = 2 … DATA_ERROR: Hash check error in data reading/writing, or abnormal FLASH = 3 … OVERFLOW: Downloading failure due to FLASH memory full at starting or during writing in a language file = 4 … MEMORYFULL: Memory reservation failure = 5 … UNSUPPORTED_DATA: Downloading data unsupported on the MFP
7	Normal	30993	1 2 3 4 5	Wait a moment. Network initializing ...	This appears when the NIC initialization is occurred, as the setting was changed.
8	Normal	40967	1 2 3 4 5	Wait a moment. Program Data receiving ...	Indicates that receiving the NIC download data.
9	Normal	40967	1 2 3 4 5	Wait a moment. Program Data received OK.	Indicates that finished receiving the NIC download data.

No.	Category	PJL Status Code	Error Warning		Description
10	Normal	40967	1 2 3 4 5	Please check data. Program Data Receive Error <%DLCODE%>	An error has happened while the printer is receive-processing the NIC download data. %DLCODE% 1: File size error 2: Check-sum error 3: Invalid printer model number 4: Invalid module I/F version 5: Invalid FAT version
11	Normal	40967	1 2 3 4 5	Wait a moment. Program Data writing ...	The printer is writing the NIC download data.
12	Normal	40967	1 2 3 4 5	Power OFF/ON Program Data written OK.	The printer finished writing the NIC download data.
13	Normal	40967	1 2 3 4 5	Please check data. Program Data Write Error <%DLCODE%>	An error has happened while the printer is writing the NIC download data. %DLCODE% 1: Memory allocation error 2: Download file error 3: Device allocation error 4: No device space 5: File writing failure 6: CU-F/W mismatch
14	Normal	10798	1 2 3 4 5	SIP update in progress.	Indicates that downloading the SIP firmware data.

No.	Category	PJL Status Code	Error Warning		Description
15	Normal	-	1 2 3 4 5	Please check data. Program Data Write Error <%DLCODE%>	Indicates that an error has happened while writing the SIP download data. %DLCODE% 1: Data transfer error 2: No device space 3: Check sum error 4: Chip detection error 5: Chip erace error 6: Chip writing error 7: Chip verify error 8: Data error (Product code is wrong e.t.c.) 9: Data size error
16	Normal	10795	1 2 3 4 5	%RDYMSG%	Indicates that the unit date is being updated by using PJL command.
17	Normal	10796	1 2 3 4 5	%RDYMSG%	Indicates that the requested process is finished. "Passed" is displayed, if the process is completed correctly. "Failed" is displayed, if the process is finished with an error. This indication disappear automatically after it displayed for three seconds.
18	Normal	10759	1 2 3 4 5	Wait a moment. Executing maintenance.	Executing maintenance. While this status occurs, panel is locked.

No.	Category	PJL Status Code	Error Warning	Description
19	Normal	40090	1 Error Postscript 2 3 4 5 Close	Interpreter detects an error due to the following reason. Receive data after this is ignored until the job completion. - The job has a grammatical error. - The page is complicated, and VM was used up.
20	Normal	40994	1 Memory Overflow 2 3 4 Please see Help for details. 5 Close	Memory Overflow was occurred in the collate print.
21	Normal	10830	1 Access Limitation Error 2 Deleted unauthorized user data. 3 4 Please see Help for details. 5 Close	Notifies users that jobs have been cancelled because they are not permitted for printing. (Related to JobAccount). Notifies users that jobs have been cancelled because they are not permitted for PC-Fax. (Related to JobAccount).
22	Normal	30962	1 Expired Secure Job 2 3 4 Please see Help for details. 5 Close	Indicates that an applicable job has been automatically deleted as the retention period for authentication printing has expired.
23	Normal	30963	1 Received invalid data. 2 3 4 Please see Help for details. 5 Close	Indicates that a job has been deleted because corruption of data has been detected by the integrity verification in authentication printing.
24	Normal	30114 10827	1 Received invalid data. 2 3 4 Please see Help for details. 5 Close	Invalid data was received. Press the OK key and eliminate the warning. Displayed when unsupported PDL command is received or a spool command is received without HDD.
25	Normal	10825	1 Access Limitation Error 2 Monochrome printing was performed due 3 to the color printing limitation. 4 Please see Help for details. 5 Close	Notifies users that color print jobs were printed by monochrome because they are not permitted for color printing. (Related to JobAccount Color Access Contorl.).
26	Normal	10824	1 Access Limitation Error 2 Data was deleted due 3 to the color printing limitation. 4 Please see Help for details. 5 Close	Notifies users that color print jobs were cancelled because they are not permitted for color printing. (Related to JobAccount Color Access Contorl.).
27	Normal	10823	1 Access Limitation Error 2 Data was deleted due 3 to the printing limitation. 4 Please see Help for details. 5 Close	Notifies users that jobs were cancelled because they are not permitted for printing. (Related to JobAccount Color Access Contorl.).
28	Normal	10815	1 Accounting Log Writing Error 2 3 4 Please see Help for details. 5 Close	The Job Accounting log is not registered correctly because of thr disc access error is occurred during accounting log writing into HDD (Related to Logging). This message is displayed until OK key pressed.

No.	Category	PJL Status Code	Error Warning		Description
29	Normal	10818	1	Job Log Writing Error	The log is not registered correctly because of thr disc access error is occurred during system job log writing into HDD. This message is displayed until OK key pressed.
			2		
			3		
			4	Please see Help for details.	
			5	Close	
30	Normal	30938	1	Decode error occurred.	Indicates that an error has occurred during analysis of image data input to the MFP from an external source. This appears when an error has occurred during analysis of TIFF or JPEG data in A05: DirectPrint, A07: InternetFAX, E-mailPrint, or FaxToPrint (saving sent/received data) mode.
			2	Please check image data.	
			3		
			4		
			5	Close	
31	Normal	-	1	Access denied to PC.	Indicates that PC rejects a PushScan request. (Select Close with the cursor and) press [OK] button, and the display will return to ScanTo standby screen. (At present, screens to return to after errors have been reset vary from function to function. It is desirable to return to the same screen.)
			2	Please check PC.	
			3		
			4		
			5	Close	
32	Normal	30937	1	Color toner empty. Job cancelled.	Notifies the user that the color toner is empty and that the received color data job is cancelled.
			2		
			3		
			4		
			5	Close	
33	Normal	-	1	Error PDF	It appears when a PDF file contains a syntax error.
			2		
			3		
			4		
			5	Close	

No.	Category	PJL Status Code	Error Warning		Description
34	Normal	-	1	Invalid Password	Notifies that the entered password does not match the password set to encrypted PDF. The file will not be printed unless the passwords match.
			2		
			3		
			4		
			5	Close	
35	Normal	-	1	This document restricts printing to a valid owner password.	PDF is print-restricted. The file will not be printed unless the owner password is entered.
			2		
			3		
			4		
			5	Close	
36	Normal	-	1	USB Memory disconnected.	Indicates that the USB memory is disconnected while PrintFromUSBMemory is running. Reading of the image file is cancelled.
			2		
			3		
			4		
			5	Close	
37	Normal	-	1	Cannot open the file.	Notifies that the specified file cannot be opened.
			2		
			3		
			4		
			5	Close	
38	Normal	-	1	Cannot read the file.	Notifies that processing has failed, for instance, because of a fault in the equipment in which the data was to be stored.
			2		
			3		
			4		
			5	Close	

No.	Category	PJL Status Code		Error Warning	Description
39	Normal	-	1 2 3 4 5	Status Mode	Displays that normal Online mode starts. Data (Job) from an external portion is processed even though an error takes place after Online (ready) state once this mode starts. Displays Error or Warning on a panel. This function is secret to users. Therefore, this status does not occur in a user environment.
40	Normal	10002	1 2 3 4 5	<Print Stand-by Screen> Offline ------------------------------ <Status Key> Offline Mode	Shows Offline status.
41	Normal	10993	1 2 3 4 5	File accessing ...	The status showing FILE SYSTEM (SD Card/HDD/ FLASH) is being accessed.
42	Normal	10061	1 2 3 4 5	Data arrive.	Data receiving, process not started yet. Displayed mainly during PJL process without text print data or during job spooling.
43	Normal	10023	1 2 3 4 5	Processing ...	Data receiving or output processing
44	Normal	10096	1 2 3 4 5	Data present.	Un-printed data remains in Buffer. Waiting for data to follow.
45	Normal	10098	1 2 3 4 5	Print page %PAGES% No. of Copies %A%/%B%	Printing the following print job and reports. - PC Printing - Color Profile - Color Tuning Pattern - GL/2 Palette Sample - ID Check - Engine Status - Color Table - File System Error Report - T30 Monitor - Received Mail Data "Print page" means the current number of printing page (%PAGES%). "No of Copies" is displayed as "%A%/%B%". %A%: The number of copy in printing. %B%: the total number of printing.
46	Normal	10017	1 2 3 4 5	Demo Page printing ...	Printing Demo Pages. Indicates that the stored Demo Print data is printing, and the installed Demo Print data in Flash/ HDD is printing.
47	Normal	10015	1 2 3 4 5	Font List printing ...	Printing Font Lists. Indicates that printing sample data of the following fonts. - PCL Font List - PSE Font List - PPR Font List - FX Font List

No.	Category	PJL Status Code	Error Warning		Description
48	Normal	10014	1 2 3 4 5	Configuration printing ...	Printing Configuration. Indicates that printing of menu items and the current settings.
49	Normal	10056	1 2 3 4 5	File List printing ...	Printing File Lists. Indicates that printing of the stored File (except hidden files) list in File system(FLASH/SD Card).
50	Normal	10057	1 2 3 4 5	Error Log printing ...	Printing Error Logs
51	Normal	10942	1 2 3 4 5	Network Information printing ...	It is shown that a network setup is printing. - Network Information - Network Syslog If chosen by menu "Reports"-"System"-"Network Information", printing of a network setup will be started.
52	Normal	10891	1 2 3 4 5	MFP Usage printing ...	Printing MFP Usage Report.
53	Normal	10889	1 2 3 4 5	Scan To Log printing ...	Printing Scan to Log.
54	Normal	10099	1 2 3 4 5	Print page %PAGES% No. of Copies %A%/%B%	Collate printing. "Print page" means the current number of printing page (%PAGES%). "No of Copies" is displayed as "%A%/%B%". %A%: The number of copy in printing. %B%: the total number of printing. The unit of "Print page" is "Impression". In simplex printing, "Print page" counter is increased by 1 when the paper exited from fuser. In duplex printing, "Print page" counter is increased by 2 when the paper exited from fuser (after the back side printed out).

No.	Category	PJL Status Code	Error Warning		Description
55	Normal	10099	1 2 3 4 5	Print page %PAGES% No. of Copies %A%/%B%	Copy printing. "Print page" means the current number of printing page (%PAGES%). "No of Copies" is displayed as "%A%/%B%". %A%: The number of pages in printing. %B%: The total number of printing. The unit of "Print page" is "Impression". In simplex printing, "Print page" counter is increased by 1 when the paper exited from fuser. In duplex printing, "Print page" counter is increased by 2 when the paper exited from fuser (after the back side printed out).
56	Normal	10897	1 2 3 4 5	Verifying data.	Indicates that the integrity of print data for encrypted authentication is being verified (for corruption and tampering).
57	Normal	10007	1 2 3 4 5	Deleting data.	Indicates that job cancellation has been instructed and data is being ignored until the job completion.
58	Normal	10007	1 2 3 4 5	Deleting data.	Indicates if JAM occurs when Jam Recover is OFF, that job cancellation has been instructed and data is being ignored until the job completion.
59	Normal	10007	1 2 3 4 5	Deleting data.	Indicates a job being cancelled due to no print permit. (Related to JobAccount) 1. A job received from a user who is denied printing. 2. A color job received from a user who is denied color printing.
60	Normal	10003	1 2 3 4 5	Warming up	Warming up.
61	Normal	10963	1 2 3 4 5	Warming up.	Indicates that printing has been suspended for a while due to high temperature of the drum, or the printer is in a wait state to cope with heat at the time of switching narrow paper to wide paper.
62	Normal	10058	1 2 3 4 5	Preparing ...	Executing Auto Color Adjusting
63	Normal	10994 10988	1 2 3 4 5	Preparing ...	Executing Auto Density Adjustment. Status code 10988 corresponds to density reading, thereto 10994 corresponds to density adjusting.
64	Normal	32002	1 2 3 4 5	File System is full. Please see Help for details.	Disk-full is occurring. Because this is a temporary warning, it remains until the end of the job and disappears.

No.	Category	PJL Status Code	Error Warning		Description
65	Normal	32026	1 2 3 4 5	File System is write protected. Please see Help for details.	An attempt to write in a read-only file was done. Because this is a temporary warning, it remains until the end of the job and disappears.
66	Normal	10898	1 2 3 4 5	File erasing ...	Indicates that a secret file is being erased.
67	Normal	30961	1 2 3 4 5	Deleting encrypted job.	It indicates the deletion of encrypted authentication print job and saving of deletion request of file.
68	Normal	30956	1 2 3 4 5	Wait a moment. Network Configuration writing ...	This appears during the NIC configuration data is storing into the flash memory, as the setting was changed.
69	Normal	-	1 2 3 4 5	Cancelling ...	Indicates that copy job is cancelling.
70	Normal	10863	1 2 3 4 5	<Scan To Mail/ Network PC Screen> Scanning ... P.%SCAN_PAGE% %LOCATION_INFO% %DOC_SIZE%	Indicates that it is scanning of documents. The unit of "Page" is "Impression". In duplex scanning, "Page" counter is increased by 1 when the front side of sheet scanning started, and the counter is increased by 1 when the back side scanning started.
70	Normal	10863		<ScanToUSBMemory> Scanning ... P.%SCAN_PAGE% %DOC_SIZE% <PushScan> Scanning ... %SCAN_PAGE%page %AP_INFO% <PCScan> Scanning ... <Status> Scanning ... <Fax Sending Screen> Scanning ... %TXPAGE% Page(s) %DOC_SIZE% <Fax Manual Sending Screen> Manual Fax sending: Sending ... %TXPAGE% Page(s) %DOC_SIZE%	%LOCATION_INFO%: Location Information (Scan To E-mail, Scan To Network PC only) %SCAN_PAGE% : the number of current scanning page. %DOC_SIZE% : Document size Scan Size setting is "Auto" : the detected document size. Scan Size setting isn't "Auto" : the selected scan size. -------------------------------------- Indicates that it is scanning of documents by ScanToUSBMemory. The unit of "Page" is "Impression". In duplex scanning, "Page" counter is increased by 1 when the front side of sheet scanning started, and the counter is increased by 1 when the back side scanning started. %SCAN_PAGE%: the number of current scanning page. %DOC_SIZE%: Document size Scan Size setting is "Auto" : the detected document size. Scan Size setting isn't "Auto" : the selected scan size. -------------------------------------- Indicates that it is scanning of documents by Push Scan / PC Scan. %AP_INFO% : Selected application setting. While a document is scanned by FAX memory transmission, status LED does not illuminate because this status is not raise.

No.	Category	PJL Status Code	Error Warning		Description
71	Normal	-	1 2 3 4 5	Scan Pages sss Print Pages ppp Copy aa/bb --- It cannot confirm this message from a status key.	Indicates that it is copying. sss: the number of current scanning page. ppp: the number of current printing page. aa: the number of current printing. bb: the total number of printing. The unit of "Scanned pages" is "Impression". For example, in duplex scanning, "Scanned pages" counter is increased +1 at the front side of sheet scanning started, and the counter is increased +1 at the back side scanning started. The unit of "Print pages" is "Impression". In simplex printing, "Print page" counter is increased by 1 when the paper exited from fuser. In duplex printing, "Print page" counter is increased by 2 when the paper exited from fuser (after the back side printed out).
72	Normal	-	1 2 3 4 5	<Copy Screen> Please set next document. ----------------------------- <Scan To, Fax Sending Screen> Please set next document.	This screen is displayed at the time of the scanning completed in Job Build = ON.

No.	Category	PJL Status Code	Error Warning		Description
73	Normal	10861	1 2 3 4 5	Cancelling ...	Indicates that the scanning for Scan To is cancelling by the pressing Stop key.
74	Normal	10859	1 2 3 4 5	Data writing to USB Memory.	Indicates that it is wrighting the image file to USB memory after the scanning completed. The cancel operation by STOP key pressing is unsupported during the writing to USB memory.
75	Normal	10797	1 2 3 4 5	Connecting to PC ...	Indicates that it is connecting to PC. This message will be displayed at Start key pressed after the orignal document set.
76	Normal	-	1 2 3 4 5	Telephone Please see Help for details.	The screen that specified talking by telephone is displayed, when the handset hooked up.
77	Normal	-	1 2 3 4 5	Telephone	Indicates that tha fax receiving started.

No.	Category	PJL Status Code	Error Warning		Description
78	Normal	-	1 2 3 4 5	Fax receiving ... Page: %RXPAGE% ======== [F-code PollingRX] Fax receiving ... Page: %RXPAGE% %RXFAXNUMBER%	Indicates that it is receiving fax data. %RXPAGE% : number of the current receiving page %RXFAXNUMBER% : sender Fax no. (※ F-code PollingRX only) In the case that the F-code PollingRX is done by using speed dial, display field is the following... A dial number is displayed during dialing An entry name is displayed in fax no. field during fax receiving.
79	Normal	-	1 2 3 4 5	Fax receiving ... Page: %RXPAGE% ======== [F-code PollingRX] Fax receiving ... Page: %RXPAGE% %RXFAXNUMBER%	Indicates that it is receiving fax data. %RXPAGE% : number of the current receiving page %RXFAXNUMBER% : sender Fax no. (※ F-code PollingRX only) In the case that the F-code PollingRX is done by using speed dial, display field is the following... A dial number is displayed during dialing An entry name is displayed in fax no. field during fax receiving.
80	Normal	-	1 2 3 4 5	Fax calling ... %TXFAXNUMBER%	Indicates that it is calling. %TXFAXNUMBER%: fax number of the calling.
81	Normal	-	1 2 3 4 5	Fax calling ... %TXFAXNUMBER%	Indicates that it is negotiating. %TXFAXNUMBER%: fax number of the calling.
82	Normal	-	1 2 3 4 5	Fax sending ... Page: %TXPAGE% %TXFAXNUMBER% ======== [F-code PollingTX] Fax sending ... Page: %TXPAGE%	Indicates that it is sending fax data. %TXPAGE% : number of the current receiving page %TXFAXNUMBER% : recipient Fax no.(Not display on F-code PollingTX) In the case of manual fax sending, "Manual Fax sending: Sending ..." is displayed on LCD. Scan page count and document size are displayed in the left bottom. Page number, Fax no. are not displayed. In the case that the fax sending is done by using speed dial, fax no. is displayed during both dialing and sending.

No.	Category	PJL Status Code	Error Warning		Description
83	Normal	-	1 2 3 4 5	Fax sending ... Page: %TXPAGE% %TXFAXNUMBER% ======== [F-code PollingTX] Fax sending ... Page: %TXPAGE%	Indicates that it is sending fax data. %TXPAGE% : number of the current receiving page %TXFAXNUMBER% : recipient Fax no.(Not display on F-code PollingTX) In the case of manual fax sending, "Manual Fax sending: Sending ..." is displayed on LCD. Scan page count and document size are displayed in the left bottom. Page number, Fax no. are not displayed. In the case that the fax sending is done by using speed dial, fax no. is displayed during both dialing and sending.
84	Normal	-	1 2 3 4 5	Cancelling ...	Indicates that the scanning for fax senfing is cancelling by pressing Stop key.

No.	Category	PJL Status Code	Error Warning		Description
85	Normal	10878 10868	1 2 3 4 5	Network communicating ... %STATUS%	Indicates that the details of network communication. %STATUS% E-mail transmission in progress. Transmission in progress. E-mail transmission in progress: indicates that E-mail data is sending to Mail Server. Transmission in progress: indicates that data sending via network. The cancel operation by STOP key pressing is unsupported during E-mail and fail sending.
86	Normal	10879	1 2 3 4 5	Connecting to server ...	Indicates that connecting to mail server. The cancel operation by STOP key pressing is unsupported during the connecting to mail server.
87	Normal	10875	1 2 3 4 5	Cancelling sending ...	Indicates that E-mail sending is cancelling. This massage is displayed when an error is occurred during E-mail sending. When E-mail is being sent, user cannot cancel the sending by pressing "STOP" key. The key operation is disableed during this message displayed.

No.	Category	PJL Status Code	Error Warning		Description
88	Normal	10869	1 2 3 4 5	Connecting to server ...	Indicates that connecting to file server. The cancel operation by STOP key pressing is unsupported during the connecting to file server.
89	Normal	10865	1 2 3 4 5	Cancelling sending ...	Indicates that file sending is cancelling. This message is displayed when an error is occurred during file sending. When file is being sent to server, user cannot cancel the sending by pressing "STOP" key. The key operation is disableed during this message displayed.
90	Normal	10799	1 2 3 4 5	Address Book printing ...	Indicates that printing of E-mail address list and Group address list that they are registered in Address Book.
91	Normal	10800	1 2 3 4 5	Speed Dial List printing ...	Indicates that printing of fax location list that is registered in Speed dial.
92	Normal	10801	1 2 3 4 5	Group List printing ...	Indicates that printing of fax location list that is registered in Group dial.
93	Normal	10802	1 2 3 4 5	Transmit Journal printing ...	Indicates that printing of fax sending result list.
94	Normal	10803	1 2 3 4 5	Receipt Journal printing ...	Indicates that printing of fax receiving result list.
95	Normal	10804	1 2 3 4 5	Transmit/Receipt Journal printing ...	Indicates that printing of fax communication (sending and receiving) result list.
96	Normal	10805	1 2 3 4 5	Daily Journal printing ...	Indicates that printing of fax comunication (sending and receiving) result list that was executed within 24 hours.
97	Normal	10806	1 2 3 4 5	MCF Report printing ...	Indicates that printing of fax sending confirmation report.
98	Normal	10807	1 2 3 4 5	Check Message printing ...	Indicates that printing of fax communication error report.
99	Normal	10808	1 2 3 4 5	F-code Box Journal printing ...	Indicates that printing of the message report that fax receiving data is sroted in F-code box by F-code receiving.
100	Normal	10809	1 2 3 4 5	Erased Report printing ...	Indicates that printing of the message report that the stored fax data in memory was eraced.

No.	Category	PJL Status Code	Error Warning		Description
101	Normal	10810	1 2 3 4 5	Fcode Box List printing ...	Indicates that printing of the enabled F-code box list.
102	Normal	10811	1 2 3 4 5	Block Junk Fax List printing ...	Indicates that printing of the location list that is not permission to receive fax.
103	Normal	10812	1 2 3 4 5	Stored Doc. List printing ...	Indicates that printing of the stored fax image data list.
104	Normal	10793	1 2 3 4 5	Data transmission in progress.	Indicates that scanned image data sending to PC. Cannot see the message at broadband network environment.
105	Normal	10839	1 2 3 4 5	Preparing ...	Indicate that the unit is preparing to be able to use the replaced expendable supplies. This message is displayed at the time of toner cartriges replaced.
106	Normal	10838	1 2 3 4 5	Cancelling ...	Indicates that the image data writing to USB memory is cancelling. This massage is displayed when an error is occurred during the data writing to USB memory. The key operation is disableed during this message displayed.

No.	Category	PJL Status Code	Error Warning		Description
107	Normal	-	1 2 3 4 5	Fax Rx Doc. printing ...	Printing fax Received Data.
108	Normal	-	1 2 3 4 5	Fax Store Doc. printing ...	Printing Stored fax sending data.
109	Normal	-	1 2 3 4 5	Do you wish to resume scanning?	Indicates to resume the ADF scanning for copy. The message is displayed when occurring some printer related errors and clearing the error conditions. If all sheets are scanned correctly and no remained before stopping the scanning, the message is not displayed.
110	Normal	-	1 2 3 4 5	Cancelling ...	Indicates that cancellation of PushScan (by panel operation) is accepted and being processed. The status falls when the processing is complete.
111	Normal	10007	1 2 3 4 5	Deleting data.	It occurs when color data is received while a color toner is empty. Job cancellation is requested. The printer keeps discarding all the data it receives until the job is complete.
112	Normal	-	1 2 3 4 5	File loading from USB Memory.	Indicates that a file is being read from a USB memory. Pressing Stop key will cancel the job.

No.	Category	PJL Status Code		Error Warning	Description
113	Normal	-	1 2 3 4 5	Cancelling ...	Indicates that reading from a USB memory is being cancelled.
114	Normal	-	1 2 3 4 5	An error occurred. Scanning is pending.	Indicates that scanning has been suspended.
115	Normal	10764	1 2 3 4 5	MCF Report printing ...	Indicates that printing of Internet fax sending confirmation report.
116	Normal	10765	1 2 3 4 5	Check Message printing ...	Indicates that printing of Internet fax communication error report.
117	Normal	10766	1 2 3 4 5	Transmit/Receipt Journal printing ...	Indicates that printing of Internet fax and E-mail communication (sending and receiving) result list.
118	Normal	-	1 2 3 4 5	Cancelling ...	This appears when scanning is cancelled in ScanToFax mode.
119	Normal	10001	1 2 3 4 5	Online Mode Ready to print.	Shows Online status.
120	Normal	10794	1 2 3 4 5	Please insert USB Memory.	Indicates that Scan to USB memory / PrintFromUSBMemory is selected without USB memory connection.

Warning

No.	Category	PJL Status Code	Error Warning		Description
1	Warning	10082 (Y) 10083 (M) 10084 (C) 10081 (K)	1 2 3 4 5	%COLOR% Toner Low Please see Help for details.	Toner amount is low. Moreover, when set as "Admin Setup"-"Management"-"System Setup"-"Near Life LED"=Disable, Alarm LED is switched off. %COLOR% Y M C K
2	Warning	10959 (Y) 10960 (M) 10961 (C) 10958 (K)	1 2 3 4 5	Please install new K Toner Cartridge. Please see Help for details.	This warning is displayed at Cover Open/Close or Power OFF/ON after a waste-toner full error occurs. (occur in Black only.) Displayed in a combination of other message in the first line. As long as this warning is being displayed, a waste toner full error occurs , the printer shifts to Offline and stops each time it has printed about 50 copies.
3	Warning	10925 (Y) 10926 (M) 10927 (C) 10924 (K)	1 2 3 4 5	Please install new %COLOR% Toner Cartridge. Please see Help for details.	It shows the toner cartridge of authorized 3rd party. (RFID Licensed to 3rd party) %COLOR% Y M C K
4	Warning	10955 (Y) 10956 (M) 10957 (C) 10954 (K)	1 2 3 4 5	%COLOR% Toner Cartridge Region Mismatch Please see Help for details.	The Region ID of toner cartridge is not proper to the distribution channel. %COLOR% Y M C K
5	Warning	10951 (Y) 10952 (M) 10953 (C) 10950 (K)	1 2 3 4 5	Non Genuine %COLOR% Toner Cartridge Please see Help for details.	The chip of RFID is not compatible. %COLOR% Y M C K
6	Warning	10077 (Y) 10078 (M) 10079 (C) 10076 (K)	1 2 3 4 5	Image Drum Unit Near Life Please see Help for details.	The life of the drum (warning). Displayed in a combination of other message in the first line. The printer stops at the point when it reaches the drum life (Shifts to error, OFF-LINE.) Moreover, when set as "Admin Setup"-"Management"-"System Setup"-"Near Life LED"=Disable, Alarm LED is switched off.
7	Warning	10979	1 2 3 4 5	Fuser Unit Near Life Please see Help for details.	Notifies the fuser unit is near its life. Moreover, when set as "Admin Setup"-"Management"-"System Setup"-"Near Life LED"=Disable, Alarm LED is switched off.

No.	Category	PJL Status Code	Error Warning		Description
8	Warning	10978	1 2 3 4 5	Belt Unit Near Life Please see Help for details.	Notifies the belt unit is near its life. This is a warning; thus, printing will not stop. Moreover, when set as "Admin Setup"-"Management"-"System Setup"-"Near Life LED"=Disable, Alarm LED is switched off.
9	Warning	10091	1 2 3 4 5	Please change Fuser Unit. Please see Help for details.	Notifies the life of the fuser unit (warning). This appears when the cover was opened and closed just after the fuser life error occurred.
10	Warning	10080	1 2 3 4 5	Please change Belt Unit. Please see Help for details.	Notifies the life of the belt unit (warning). This appears when the cover was opened and closed just after the belt life error occurred.
11	Warning	10966 (Y) 10967 (M) 10968 (C) 10965 (K)	1 2 3 4 5	%COLOR% Toner Empty Please see Help for details.	Notifies the toner is empty. This is a warning only. This appears when the cover was opened and closed just after the toner empty error occurred. %COLOR% Y M C K

No.	Category	PJL Status Code	Error Warning		Description
12	Warning	10939 (Y) 10940 (M) 10941 (C) 10938 (K)	1 2 3 4 5	%COLOR% Toner Cartridge not installed. Please see Help for details.	Notifies the toner cartridge is not installed. This is a warning only. %COLOR% Y M C K
13	Warning	10970 (Y) 10971 (M) 10972 (C) 10969 (K)	1 2 3 4 5	Please install new Image Drum Unit. Please see Help for details.	Notifies the life of the drum. This is a warning only. This appears when the cover was opened and closed just after the drum life error occurred.
14	Warning	10053	1 2 3 4 5	Belt Reflex Error	Belt Reflex Check Error. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment.
15	Warning	10887	1 2 3 4 5	Density Shutter Error2	Density Adjustment Shutter Error 2. Error that does not occur at user level. Displayed only in Factory Mode. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment.

No.	Category	PJL Status Code	Error Warning		Description
16	Warning	10886	1 2 3 4 5	Density Shutter Error1	Density Adjustment Shutter Error 1. Error that does not occur at user level. Displayed only in Factory Mode. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment.
17	Warning	10885	1 2 3 4 5	Density Color Calibration	Density Adjustment Color Calibration Error. Error that does not occur at user level. Displayed only in Factory Mode. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment.
18	Warning	10884	1 2 3 4 5	Density Color Sensor Error	Density Adjustment Color Sensor Error. Error that does not occur at user level. Displayed only in Factory Mode. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment.
19	Warning	10883	1 2 3 4 5	Density Black Calibration	Density Adjustment Black Calibration Error. Error that does not occur at user level. Displayed only in Factory Mode. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment.
20	Warning	10882	1 2 3 4 5	Density Black Sensor Error	Density Adjustment Black Sensor Error. Error that does not occur at user level. Displayed only in Factory Mode. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment.
21	Warning	10976	1 2 3 4 5	%COLOR% Image Drum Smear Error	Density Adjustment ID ERROR 2; smear due to ID failure. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment. %COLOR% Y M C K

No.	Category	PJL Status Code	Error Warning		Description
22	Warning	10975	1 2 3 4 5	%COLOR% Low Density Error	Density Adjustment ID ERROR; LED out of focus is assumed. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment. %COLOR% Y M C K
23	Warning	10054	1 2 3 4 5	Sensor Calibration Error	When output of color registration sensor is below reference value. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment.
24	Warning	10051	1 2 3 4 5	Registration Error <%CODE%>	When a color registration error is detected with coarse adjustment, or with the main-scan line adjustment. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment. %CODE% 2 = Yellow 3 = Magenta 4 = Cyan 5 = Black
25	Warning	10052	1 2 3 4 5	Registration Sensor Error <%CODE%>	When a color registration error is detected with the fine control of registration adjustment, or with the sub-scan line adjustment. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment. %CODE% 2 = Yellow 3 = Magenta 4 = Cyan 5 = Black

No.	Category	PJL Status Code	Error Warning		Description
26	Warning	10945 (Y) 10946 (M) 10947 (C) 10944 (K)	1 2 3 4 5	%COLOR% Head Data Error	The LED head calibration data is missing or invalid. Printing can be proceeded without calibrating light radiation. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment. %COLOR% Y M C K
27	Warning	1601x x: Tray #	1 2 3 4 5	%TRAY% Empty Please see Help for details.	%TRAY%: The tray is empty. Treated as Warning until printing to the empty tray is designated. %TRAY% Tray1 Tray2
28	Warning	1090x	1 2 3 4 5	%TRAY% missing. Please see Help for details.	Indicates that paper trays are not installed. %TRAY% Tray1
29	Warning	10814	1 2 3 4 5	Accounting Log Buffer is near full. Please see Help for details.	It indicates the Job Accounting log buffer is near full.
30	Warning	10787	1 2 3 4 5	Accounting Log Buffer Full (Delete old logs)	The function isn't accepted because log buffer is full. (Related to JobAccount). This message is displayed, if the log buffer is full and "Operation at Log Full" in Job Accounting Server Software is set to "Delete old logs". The new jobs will be able to execute after the following operations. 1. The log in the unit must be got by Job Accounting Server Software. 2. The setting of "Operation at Log Full" must be changed to "Does not acquire logs".
31	Warning	10072(Y) 10073(M) 10074(C) 10071(K)	1 2 3 4 5	Please check %COLOR% Toner Cartridge. Please see Help for details.	Something is wrong with the toner sensor during printing. %COLOR% Y M C K
32	Warning	10760 (K)	1 2 3 4 5	Please install new K Toner Cartridge. Please see Help for details.	Indicates that a waste toner box represented by Black has become full and needs to be replaced. (Warning) If continuing printing, "Waste Toner Full Error" will occur. (occur in K only.)

No.	Category	PJL Status Code	Error Warning		Description
33	Warning	-	1	%COLOR% Toner Empty	Indicates that a toner is empty and that there is no data (idle state). The same message as that for STATUS_ID_TONER_EMPTY_W is displayed. LED indication: • When K is empty, both Color and Mono Start key LEDs go out. • When any toner except K is empty, Mono Start key LED is on (Color Start key LED go out).
			2		
			3		
			4		
			5	Please see Help for details.	
33	Warning				%COLOR% Y M C K === This will occur only during a job that requires printing. During other jobs, Toner Empty is handled as STATUS_ID_IDLE_TONER_EMPTY_W (warning). If a print job is requested during STATUS_ID_IDLE_TONER_EMPTY_W, the status changes from STATUS_ID_IDLE_TONER_EMPTY_W to STATUS_ID_TONER_EMPTY and an error message appears. When a monochrome print job is requested while a color toner is in STATUS_ID_IDLE_TONER_EMPTY_W, if the CU can identify it as a monochrome job, we will change it so that STATUS_ID_IDLE_TONER_EMPTY_W of color toner won't be detected.

No.	Category	PJL Status Code	Error Warning		Description
34	Warning	10756	1 2 3 4 5	Wait Timeout is disabled. If your printer is connected to USB port, it may become unable to print a job without via the USB port.	Indicates that Print Timeout is disabled.
35	Warning	-	1 2 3 4 5	PDF Cache Write Error Close	Notifies that writing a PDF file to the cache has failed. When an SD card is not used, add memory or an SD card. When an SD card is used, increase free space on the SD card.
36	Warning	10758	1 2 3 4 5	It was not possible to communicate with the SNTP server.	Notifies that the system has attempted to obtain the current time from the SNTP server and failed.

Error (Enable to restore)

No.	Category	PJL Status Code	Error Warning		Description
1	Error	10899	1 2 3 4 5	Erased Data Full Please see Help for details.	Indicates that a secret file waiting to be erased is full.
2	Error	472yy 473yy 475yy	1 2 3 4 5	Please install paper on %TRAY%. : %ERRCODE% Please set paper (%MEDIA_SIZE%). To cancel, select [Cancel]	Printing request is issued to an empty tray. Load paper that was set in %MEDIA_SIZE%. (It takes a while until the status disappears after you have closed the tray and the lever lifted.) %TRAY% Tray1 Tray2 The unit of paper size in Custom: The unit specified for MP Tray (menu setting) is used if no unit is specified by the driver. When the driver specifies a unit, the unit is used for display.
3	Error	4600x 46002 (Tray1) 46003 (Tray2)	1 2 3 4 5	Please close %TRAY%.: 430,440 To cancel, select [Cancel]	Indicates removal of the paper cassette of Tray 1 that is a paper path in attempting to print from Tray 2. %TRAY% Tray1
4	Error	46012	1 2 3 4 5	Please close %TRAY%.: 430,440 To cancel, select [Cancel]	Indicates that paper feed is unavailable in attempting to print from Tray 1 due to removal of the paper cassette of Tray 1. %TRAY% Tray1 Note: If the paper cassette of the tray is removed during displaying paper request (no.2, 55), system will display that tray is removed (this display)
5	Error	40955(K)	1 2 3 4 5	Please install new K Toner Cartridge.: 417 Please see Help for details.	Indicates that a waste toner box represented by Black has become full and needs to be replaced. Warning status takes effect at Cover Open/Close and printing of about 50 copies becomes available.
6	Error	40029 (Y) 40030 (M) 40031 (C) 40028 (K)	1 2 3 4 5	%COLOR% Toner Empty: %ERRCODE% Please see Help for details.	Toner ends. Error 410 : Y Error 411 : M Error 412 : C Error 413 : K Warning status takes effect at Cover Open/Close.

No.	Category	PJL Status Code	Error Warning		Description
7	Error	40948 (Y) 40949 (M) 40950 (C) 40947 (K)	1 2 3 4 5	%COLOR% Toner Cartridge Region Mismatch: %ERRCODE% Please see Help for details.	The signature ID of toner cartridge is not proper to the distribution channel, but the group of signature ID is proper (OKI regional mismatch). As probable missing to measure the amount of toner, the printer notifies error status and stop printing. Error 554 : Y Error 555 : M Error 556 : C Error 557 : K When this error occurs in more than one color toners, the all tonners that have this error status and a high most priolity error code are displayed. Example) When this error occurs in all toners: YMCK Toner Regional Mismatch: 554 When this error occurs in MC toners: MC Toner Regional Mismatch: 555

No.	Category	PJL Status Code	Error Warning		Description
8	Error	40911 (Y) 40912 (M) 40913 (C) 40910 (K)	1 2 3 4 5	%COLOR% Toner Cartridge Region Mismatch: %ERRCODE% Please see Help for details.	The signature ID of toner cartridge is not proper to the distribution channel, and the group of signature ID is not proper (OEM channel mismatch). Error 614 : Y Error 615 : M Error 616 : C Error 617 : K When this error occurs in more than one color toners, the all tonners that have this error status and a high most priolity error code are displayed. Example) When this error occurs in all toners: YMCK Toner Regional Mismatch: 614 When this error occurs in MC toners: MC Toner Regional Mismatch: 615

No.	Category	PJL Status Code	Error Warning		Description
9	Error	40907 (Y) 40908 (M) 40909 (C) 40906 (K)	1	%COLOR% Toner Cartridge Region Mismatch: %ERRCODE%	The signature ID of toner cartridge is not proper to the distribution channel, and the group of signature ID is protected (OEM mismatch). Error 620 : Y Error 621 : M Error 622 : C Error 623 : K When this error occurs in more than one color toners, the all tonners that have this error status and a high most priolity error code are displayed. Example) When this error occurs in all toners: YMCK Toner Regional Mismatch: 620 When this error occurs in MC toners: MC Toner Regional Mismatch: 621
			2		
			3		
			4		
			5	Please see Help for details.	

No.	Category	PJL Status Code	Error Warning		Description
10	Error	40944 (Y) 40945 (M) 40946 (C) 40943 (K)	1	%COLOR% Toner Cartridge Region Mismatch: %ERRCODE%	The signature ID of toner cartridge can not be recognized (Unauthorized third party). As probable missing to measure the amount of toner, the printer notifies error status and stop printing. Error 550 : Y Error 551 : M Error 552 : C Error 553 : K Four following behavior is carried out by mode of operation. 1. Only warning display. (This error is not displayed). 2. Warning status takes effect at Cover Open/ Close. 3. With no automatic concentration compensation. 4. This error is displayed and it stops. When this error occurs in more than one color toners, the all tonners that have this error status and a high most priolity error code are displayed. Example) When this error occurs in all toners: YMCK Toner Regional Mismatch: 550 When this error occurs in MC toners: MC Toner Regional Mismatch: 551
			2		
			3		
			4		
			5	Please see Help for details.	

No.	Category	PJL Status Code	Error Warning		Description
11	Error	40903 (Y) 40904 (M) 40905 (C) 40902 (K)	1 2 3 4 5	%COLOR% Toner Cartridge not installed.: %ERRCODE% Please see Help for details.	The toner cartridge is not installed. Error 610 : Y Error 611 : M Error 612 : C Error 613 : K Four following behavior is carried out by mode of operation. 1. Only warning display. (This error is not displayed). 2. Warning status takes effect at Cover Open/ Close. 3. With no automatic concentration compensation. 4. This error is displayed and it stops.
12	Error	40960 (Y) 40961 (M) 40962 (C) 40959 (K)	1 2 3 4 5	Please check %COLOR% Toner Cartridge.: %ERRCODE% Please see Help for details.	Something is wrong with the toner sensor. This status is indicated in Shipping Mode only. If the same error is detected in FACTORY Mode, it is indicated as service call of 163. Error 540 : Y Error 541 : M Error 542 : C Error 543 : K
13	Error	30034	1 2 3 4 5	Paper Size Error Please open the scanner unit and the top cover and check paper size. Please see Help for details.	Inappropriate size paper was fed from a tray. Check the paper in the tray or check for Multiple-feed. Open and close the cover to perform recovery printing, and continue.
14	Error	40077	1 2 3 4 5	Paper Jam: 390 Please open the scanner unit and the top cover. Please see Help for details.	Paper Jam occurred during paper feeding from tray. Error 390 : MP Tray
15	Error	40077	1 2 3 4 5	Paper Jam: %ERRCODE% Please pull out the paper cassette of the indicated tray. Please see Help for details.	Paper Jam occurred during paper feeding from tray. Error 391 : Tray1 Error 392 : Tray2
16	Error	40982	1 2 3 4 5	Paper Jam: 380 Please open the scanner unit and the top cover. Please see Help for details.	Jam has occurred in paper path. Error 380 : Feed
17	Error	40078 40079 40051 40820	1 2 3 4 5	Paper Jam: %ERRCODE% Please open the scanner unit and the top cover. Please see Help for details.	Jam has occurred in paper path. Error 381 : Transport Error 382 : Exit Error 385 : Around Fuser Unit
18	Error	40819	1 2 3 4 5	Paper Jam: 381 Please open the scanner unit and the top cover. Please see Help for details.	Jam has occurred in paper path. Error 381 : Transport
19	Error	40052 40053 40055	1 2 3 4 5	Paper Jam: %ERRCODE% Please open the scanner unit and the top cover. Please see Help for details.	Jam has occurred nearby DUPLEX unit. Error 370 : Duplex Reversal Error 371 : Duplex Input

No.	Category	PJL Status Code	Error Warning		Description
20	Error	40054	1 2 3 4 5	Paper Jam: 372 Please open the scanner unit and the top cover. Please see Help for details.	Jam has occurred nearby DUPLEX unit. Error 372 : Misfeed from Duplex
21	Error	40997 (Y) 40998 (M) 40999 (C) 40996 (K)	1 2 3 4 5	Please install new Image Drum Unit. Please see Help for details.	The life of the image drum (Alarm) Error 350 : Y Error 351 : M Error 352 : C Error 353 : K Warning status takes effect at Cover Open/Close.
22	Error	40937 (Y) 40938 (M) 40939 (C) 40936 (K)	1 2 3 4 5	Please install new Image Drum Unit. Please see Help for details.	The toner empty error is occurred after the image drum reached its life. Error 560 : Y Error 561 : M Error 562 : C Error 563 : K This is displayed until a user exchanges the image drum.
23	Error	40971	1 2 3 4 5	Please change Fuser Unit.: 354 Please see Help for details.	Notifies the fuser has reached its life. This is the error displayed based on the counter to indicate that the fuser has reached its life, and printing will stop. Warning status takes effect at Cover Open/Close. This error will occur on some user setting mode. %ERRCODE% specifies 3 digits error code.

No.	Category	PJL Status Code	Error Warning		Description
24	Error	40970	1 2 3 4 5	Please change Belt Unit.: 355 Please see Help for details.	Notifies the transfer belt has reached its life. This is the error displayed based on the counter to indicate that the belt has reached its life, and printing will stop. Warning status takes effect at Cover Open/Close. %ERRCODE% specifies 3 digits error code.
25	Error	40926	1 2 3 4 5	Please check Fuser Unit.: 348 Please see Help for details.	The engine detects the fuser unit error. It recovers, when a value is able to be normally read by re-reading after cover closing. When not recovering, exchange of a fuser unit is needed. %ERRCODE% specifies 3 digits error code.
26	Error	40964	1 2 3 4 5	Please change Belt Unit.: 356 Please see Help for details.	Indicates waste toner full. Warning status takes effect only once at Cover Open/Close, and the error occurs again when about 500 copies have been printed. %ERRCODE% specifies 3 digits error code.

No.	Category	PJL Status Code	Error Warning	Description
27	Error	40915 (Y) 40916 (M) 40917 (C) 40914 (K)	1 Please check %COLOR% Toner Cartridge.: %ERRCODE% 2 3 4 5 Please see Help for details.	Shows that the toner is not supplied (the toner cannot be detected). The lever of toner cartridge may not be locked, or toner cartridge may be set with protection tape. Shows that the toner cartridge lever has not been locked. %ERRCODE%: specifies 3 digits error code. Error 544 : Y Error 545 : M Error 546 : C Error 547 : K
28	Error	40992	1 Please check Fuser Unit.: 320 2 3 4 5 Please see Help for details.	The fuser unit is not correctly installed.
29	Error	40037	1 Please check Belt Unit.: 330 2 3 4 5 Please see Help for details.	The belt unit is not correctly installed.
30	Error	40021 40991	1 Please check the top cover.: %ERRCODE% 2 3 Please close the top cover. 4 5 Please see Help for details.	The cover is open. Error 310 : Top Cover
31	Error	40788	1 ADF Cover Open 2 3 4 5 Please see Help for details.	Indicates that ADF cover of scanner unit is opened. Indicates that inter-lock cover of scanner unit is lifted up. Notes: If inter-lock cover is lifted up during scanning from document feeder, system will display document jam.
32	Error	40789	1 Document Jam 2 Please open the scanner unit and the ADF cover. 3 4 5 Please see Help for details.	Indicates that the document jam occurred during the scanning.
33	Error	40779	1 Lamp Error. Please call service. <%CODE%> 2 3 4 5 Please see Help for details.	Indicates that the lamp error is occured. This message is displayed because of the light intensity of lamp is weaker. %CODE% : details =1: Calibration defective (device) =2: Calibration defective (LED) =3: Calibration defective (timewise deterioration)
34	Error	40734	1 USB Memory Full 2 3 4 Please see Help for details. 5 Close	Indicates that the file saving is failed bacause of USB memory doesn't have enough free space. The file saving is aborted.
35	Error	40731	1 Writing Failed 2 3 4 Please see Help for details. 5 Close	Indicates that the file saving is failed for the reasons of being in a write-protected state.

No.	Category	PJL Status Code	Error Warning		Description
36	Error	30941	1 2 3 4 5	USB Memory disconnected. Please see Help for details. Close	Indicates that the USB memory was extracted. When a USB memory is extracted all over ScanToMemory execution, the file saving of image file is stopped.
37	Error	40716	1 2 3 4 5	Connect to PC failed. Please see Help for details. Close	Indicates that it is failed to connect to PC. If the OK key is pressed, it shift to stand-by screen.
38	Error	-	1 2 3 4 5	Communication Error Close	Indicates that the fax sending was failed. The details of the fax sending errors are not displayed. The message is shown after the job was finished by communication error and it is kept until pressing a OK key. It is reset at new transmission. (When Country Code is Germany, it is not applied by DTS.)
39	Error	-	1 2 3 4 5	Communication Error Close	Indicates that the fax receiving was failed. The details of the fax receiving errors are not displayed. The message is shown after the job was finished by communication error and it is kept until pressing a OK key. It is reset at new transmission. (When Country Code is Germany, it is not applied by DTS.)
40	Error	40593	1 2 3 4 5	File Transmission Error Please see Help for details. Close	Indicates that file sending was failed due to the file server problems, network cable discnnected or network trouble (Scan To Network PC). This message is cleared by the pressing OK key.
41	Error	40727	1 2 3 4 5	E-mail Transmission Error Please see Help for details. Close	Indicates that E-mail sending was failed due to the mail server problems, network cable discnnected or network trouble (Scan To E-mail). This message is cleared by the pressing OK key.
42	Error	40765	1 2 3 4 5	Please check SMTP settings. Please see Help for details. Close	Indicates that failed to connect with SMTP server.
43	Error	40764	1 2 3 4 5	Please check POP3 settings. Please see Help for details. Close	Indicates that failed to connect with POP3 server.

No.	Category	PJL Status Code	Error Warning		Description
44	Error	40763	1 2 3 4 5	SMTP Login failed. Please see Help for details. Close	Indicates that failed to login in SMTP server.
45	Error	40762	1 2 3 4 5	SMTP Auth. Unsupported Please see Help for details. Close	Indicates that authentification is unsupported by SMTP server.
46	Error	40761	1 2 3 4 5	POP3 Login failed. Please see Help for details. Close	Indicates that failed to login in POP3 server.
47	Error	40812	1 2 3 4 5	Getting target IP failed. Please check DHCP settings. Please see Help for details.	Indicates that DHCP server is not found out. Scan to E-mail, Scan to Network PC and Scan to Remote PC (WSD) are unusable during this status occurring. This message is displayed by the timing when "Mail", "Network PC" icons were pressed with a "Scan Menu" screen.
48	Error	40752	1 2 3 4 5	Please check DNS settings. Please see Help for details. Close	Indicates that failed to connect DNS Server. The same message is displayed, if name resoution is failed in DNS server.
49	Error	10821	1 2 3 4 5	Please remove the connected USB device. Unsupported USB device is connected.	Indicates that the unsupported USB device was connected. This message will be displayed until the unsupported USB device disconnected.
50	Error	10819	1 2 3 4 5	Please remove the USB Hub. USB Hub is connected.	Indicates that the unsupported USB Hub was connected. This message will be displayed until the unsupported USB Hub disconnected.
51	Error	40565	1 2 3 4 5	Document Jam Please open the scanner unit and the ADF cover. Please see Help for details.	At machine initial time (power-on, restoration time from sleep), a manuscript was detected on a set sensor.
52	Error	40588	1 2 3 4 5	Please close faceup stacker. 581:Cannot print with duplex.	Indicates that the printer cannot carry out duplex printing because the faceup stacker is open. ※This is handled as an error because in the case of FX750, if the faceup stacker is open, the printer does not reverse the exit motor and thus cannot draw the print medium onto the duplex path.
53	Error	40585	1 2 3 4 5	Please open the top cover. 409:Faceup Stacker Error	Indicates that an error has occurred as the faceup stacker was operated during printing and printing stopped.

No.	Category	PJL Status Code	Error Warning		Description
54	Error	411yy yy: paper size	1 2 3 4 5	Please install paper on MP Tray. Please set paper (%MEDIA_SIZE%). To cancel, select [Cancel]	Manual paper feed is required. Manually insert the paper shown by %MEDIA_SIZE%. The unit of paper size in Custom: The unit specified for MP Tray (menu setting) is used if no unit is specified by the driver. When the driver specifies a unit, the unit is used for display. Paper size displays in Custom mode: <width>x<length><unit>" ex.) 210 x 297mm 8.5 x 11.0inch %TRAY% MP Tray
55	Error	470yy	1 2 3 4 5	Please install paper on MP Tray. : 490 Please set paper (%MEDIA_SIZE%). To cancel, select [Cancel]	Printing request is issued to an empty MP Tray. Load paper that was set in %MEDIA_SIZE%. %TRAY% MP Tray The unit of paper size in Custom: The unit specified for MP Tray (menu setting) is used if no unit is specified by the driver. When the driver specifies a unit, the unit is used for display. This error is occurred, when the MP Tray is in the home position and the sensor "PE SNS2" cannot detect papers.

No.	Category	PJL Status Code	Error Warning		Description
56	Error	-	1 2 3 4 5	Memory Overflow Rx	Indicates that the fax Memory Overflow was occurred during fax receiving.
57	Error	40778	1 2 3 4 5	Memory Overflow Please see Help for details. Close	Display that Memory Overflow is occurred during PC Fax Job receiving. Return to Mode Selection screen by the pressing OK key.

No.	Category	PJL Status Code	Error Warning		Description
58	Error	32000 ~ 32026	1	Disk Use Failed %FS_ERR%	A disk error is occurred, which is other than the file system fill or the disk write protected. Operation that does not involve a disk is available. This message is cleared by OK key pressed. %FS_ERR% = 0 GENERAL ERROR = 1 VOLUME NOT AVAILABLE = 3 FILE NOT FOUND = 4 NO FREE FILE DESCRIPTORS = 5 INVALID NUMBER OF BYTES = 6 FILE ALREADY EXISTS = 7 ILLEGAL NAME = 8 CANT DEL ROOT = 9 NOT FILE = 10 NOT DIRECTORY = 11 NOT SAME VOLUME = 12 READ ONLY = 13 ROOT DIR FULL = 14 DIR NOT EMPTY = 15 BAD DISK = 16 NO LABEL = 17 INVALID PARAMETER = 18 NO CONTIG SPACE = 19 CANT CHANGE ROOT = 20 FD OBSOLETE = 21 DELETED = 22 NO BLOCK DEVICE = 23 BAD SEEK = 24 INTERNAL ERROR = 25 WRITE ONLY
			2		
			3		
			4	Please see Help for details.	
			5	Close	

No.	Category	PJL Status Code	Error Warning		Description
59	Error	482yy 483yy 485yy	1	Tray Media Mismatch: %ERRCODE%	The media type in the tray and the print data do not match. Load paper that was set in %MEDIA_SIZE% and %MEDIA_TYPE% in tray. %TRAY% Tray1 Tray2 Paper size displays in Custom mode: <width>x<length><unit>" ex.) 210 x 297MM 8.5 x 11.0INCH The unit of paper size in Custom: The unit specified for MP Tray (menu setting) is used if no unit is specified by the driver. When the driver specifies a unit, the unit is used for display.
			2	Please install paper(%MEDIA_SIZE% %MEDIA_TYPE%) on %TRAY%.	
			3		
			4		
			5		

No.	Category	PJL Status Code	Error Warning		Description
60	Error	480yy	1 2 3 4 5	Tray Media Mismatch: %ERRCODE% Please install paper(%MEDIA_SIZE% %MEDIA_TYPE%) on %TRAY%.	The media type in the tray and the print data do not match. Load paper that was set in %MEDIA_SIZE% and %MEDIA_TYPE% in tray. %TRAY% MP Tray Paper size displays in Custom mode:" <width>x<length><unit>" ex.) 210 x 297MM 8.5 x 11.0INCH The unit of paper size in Custom: The unit specified for MP Tray (menu setting) is used if no unit is specified by the driver. When the driver specifies a unit, the unit is used for display.
61	Error	482yy 483yy 485yy	1 2 3 4 5	Tray Media Mismatch: %ERRCODE% Please install paper(%MEDIA_SIZE% %MEDIA_TYPE%) on %TRAY%.	The size of paper or media type in the tray does not match the print data. Load paper that was set in %MEDIA_SIZE% and %MEDIA_TYPE% in tray. (It takes a while until the status disappears after you have closed the tray and the lever lifted.) %TRAY% Tray1 Tray2 The paper size displaying form of the custom mode is the same as above.
62	Error	480yy	1 2 3 4 5	Tray Media Mismatch: %ERRCODE% Please install paper(%MEDIA_SIZE% %MEDIA_TYPE%) on %TRAY%.	The size of paper or media type in the tray does not match the print data. Load paper that was set in %MEDIA_SIZE% and %MEDIA_TYPE% in tray. %TRAY% MP Tray The paper size displaying form of the custom mode is the same as above.
63	Error	30097	1 2 3 4 5	Memory Overflow: 420 Please see Help for details. Close	Memory capacity overflows due to the following reason. Install expansion RAM or decrease the data amount. - Too much print data in a page. - Too much Macro data. - Too much DLL data. - After frame buffer compression, over flow occurred.

No.	Category	PJL Status Code	Error Warning		Description
64	Error	40735 40759 40748 40591 40710	1 2 3 4 5	Memory Overflow Please see Help for details. Close	Indicates that Memory Overflow is occurred during the following functions executing. - Memory Overflow is occurred during the executing of copy. - Memory Overflow is occurred during the executing of Scan To mail. - Memory Overflow is occurred during the executing of Scan To Network PC. - Memory Overflow is occurred during the executing of Scan To USB memory. - Memory Overflow is occurred during the executing of Fax sending.
65	Error	40751	1 2 3 4 5	Please check Server setting. Please see Help for details. Close	Indicates that failed to connect with file server.
66	Error	40750	1 2 3 4 5	Server Login failed. Please see Help for details. Close	Indicates that failed to login in CIFS or FTP server.
67	Error	40718	1 2 3 4 5	Entering directory failed. Please see Help for details. Close	Indicates that failed to access in directory of FTP server.
68	Error	40744	1 2 3 4 5	Changing data Transfer Type failed. Please see Help for details. Close	Indicates that the data transfer type of FTP server is not supported by this unit. The file sending will be success by the changing of data transfer type in FTP serve.
69	Error	40592	1 2 3 4 5	File writing failed. Please see Help for details. Close	Indicates that failed to make image file in file server during Scan To Network PC executing.
70	Error	40742	1 2 3 4 5	Storage Space Full Please see Help for details. Close	Indicates that the file sending is failed because of FTP Server doesn't have enough free space in strage device. (FTP Server)
71	Error	40741	1 2 3 4 5	Please change File Name. Please see Help for details. Close	Indicates that the file sending is failed because of the file name is not permission. (FTP Server)
72	Error	40594	1 2 3 4 5	Unsupported Server Please see Help for details. Close	Indicates that the server does not support CIFS/FTP.
73	Error	40739	1 2 3 4 5	Please check Network Share Name. Please see Help for details. Close	Indicates that the network folder name is wrong. (CIFS Server)

No.	Category	PJL Status Code	Error Warning		Description
74	Error	-	1 2 3 4 5	Memory Overflow OK	The same type of status as STATUS_ID_FAX_S_MEMORY_OVERFLOW Indicates that memory overflow has occurred during ScanToFax.
75	Error	-	1 2 3 4 5	Memory Overflow OK	Similar error to STATUS_ID_FAX_S_MEMORY_OVERFLOW Indicates that memory overflow has occurred while fax is being received.

Error (Disable to restore)

No.	Category	PJL Status Code	Error Warning		Description
1	Error	40712	1 2 3 4 5	Inspection is required. %ERRCODE%: SIP Error	Indicates that the processing of Scan Image Processing contller was failed. User must turn Off/ On the power supply, if this status occurred. %ERRCODE% =1 : RAM Check Error =2 : Illigal parameters =3 : Memory Overflow =4 : Scanner Receiving Time-out =5 : Others (Fatal Error)
2	Error	40724	1 2 3 4 5	Please call service. Scanner unit failed to detect printer unit.	Indicates that scanner and printer is not connected. This message is displayed, if the communication between scanner and printer units could not be started. User must turn Off/ On the power supply, if this status occurred.
3	Error	40714	1 2 3 4 5	SIP Firmware Missing	Indicates that the firmware in board can not be detected.
4	Error	-	1 2 3 4 5	Inspection is required. PU Flash Error	It is shown that PU firmware has booted in Loader mode. If initialization is completed, it will change to the status of no.5. This status may occur also in a user environment. When it occurs, the maintenance by a maintenance member is required (equivalent to S/C). Communication error occurred between CU and PU. PU firmware may not be downloaded.
5	Error	-	1 2 3 4 5	Inspection is required. PU Communication Error	Displays that communication to PU firmware failed. This status may occur also in a user environment. When it occurs, the maintenance by a maintenance member is required (equivalent to S/C). If this status occurred during the unit initialinzing the message is displayed by English.
6	Error	40978	1 2 3 4 5	%PUFLASH% Flash Error	PU flush error (Error occurs during the alteration of PU farm or it failed in the alteration in PU flush of such as LED Head information.) %PUFLASH% PU TRAY2 DUPLEX

No.	Category	PJL Status Code	Error Warning		Description
7	Error	40972	1 2 3 4 5	Power OFF and wait for a while.: 321	Motor Driver IC overheat is detected.
8	Error	40057	1 2 3 4 5	Power OFF/ON %ERRCODE%:Error	A fatal error occurred. For more information, see "Service Calls List." %ERRCODE%: specifies 3 digits (decimal) error code. The message of fatal error is specified by English only.
9	Error	40057	1 2 3 4 5	Inspection is required. %ERRCODE%:Error	A fatal error occurred. For more information, see "Service Calls List." %ERRCODE%: specifies 3 digits (decimal) error code. The message of fatal error is specified by English only.
10	Error	40057	1 2 3 4 5	Inspection is required. %ERRCODE%:Error %CODE%	A fatal error occurred. For more information, see "Service Calls List." %ERRCODE%: specifies 3 digits (decimal) error code. '%CODE%' specifies error code that is the detailed error cause. (2 digits, hexadecimal) The message of fatal error is specified by English only.
11	Error	40057	1 2 3 4 5	Power OFF/ON %ERRCODE%:Error	A fatal error occurred. For more information, see "Service Calls List." %ERRCODE%: specifies 3 digits (decimal) error code. F0C, F0D, FFE, and FFF are hexadecimal code. The message of fatal error is specified by English only.
12	Error	40057	1 2 3 4 5	Power OFF/ON %ERRCODE%:Error	A fatal error occurred. For more information, see "Service Calls List." %ERRCODE%: specifies 3 digits (decimal) error code. The message of fatal error is specified by English only.
13	Error	40787	1 2 3 4 5	Carriage Error <%CODE%>	Indicates that it is carriage error. %CODE% : details =2 : Home position error (carriage connection error) =3 : Defective detecting black edge

No.	Category	PJL Status Code	Error Warning		Description
14	Error	40057	1 2 3 4 5	Power OFF/ON %ERRCODE%:Error %FATALSTRING1%	A fatal error occurred. For more information, see "Service Calls List." %ERRCODE%: specifies 3 digits (decimal) error code. '%FATALSTRING1%' specifies error code that is the detailed error cause. The message of fatal error is specified by English only.
15	Error	40057	1 2 3 4 5	%ERRCODE%:Error %FATALSTRING2%	A fatal error occurred. For more information, see "Service Calls List." %ERRCODE%: specifies 3 digits (decimal) error code. '%FATALSTRING2%' specifies error code that is the detailed error cause. The message of fatal error is specified by English only.
16	Error	40057	1 2 3 4 5	Power OFF/ON %ERRCODE%:Error %CODE%	A fatal error occurred. For more information, see "Service Calls List." %ERRCODE%: specifies 3 digits (decimal) error code. '%CODE%' specifies error code that is the detailed error cause. The message of fatal error is specified by English only.
17	Error	40057	1 2 3 4 5	Power OFF/ON %ERRCODE%:Download Error	Downloading Media Table to PU has failed. (Related to CustomMediaType.) %ERRCODE%: specifies 3 digits (decimal) error code. The message of fatal error is specifiedby English only. "Download Error" is specified by Japanease and English only.
18	Error	30936	1 2 3 4 5	Unauthorized Scan Error Code: X01 Close	Notifies that a particular pattern is detected (banknote detection) during scanning for photocopy. The message shall be written in English even when the MFP is bound for Japan. The exact words shall be displayed and they shall not be shortened. The message shall not be translated into any other languages.

7.5.2 Service Call List

Display	Cause	Error details		Measure
Inspection is required. 001 : Error	Machine Check Exception	A hardware error was detected (board failure or insufficient power supply capacity).		Replace the CU/ PU board.
Power OFF/ON 002 : Error ～ 006 : Error 009 : Error ～ 011 : Error	CPU Exception	Is the error display provided again?	Yes No	Remove any RAM DIMM and turn off and on the MFP. Replace the CU/ PU board. Reinstall the RAM DIMM.
Inspection is required. 020 : Error	CU ROM Hash Check Error	Is the error display provided again?	Yes	Turn off and on the MFP. Replace the CU/ PU board.
Inspection is required. 024 : Error 025 : Error	Kanji Font Error			
Inspection is required. 030 : Error	CU RAM Check Error	Is the error display provided again?	Yes	Turn off and on the MFP. Replace the CU/ PU board.
Inspection is required. 031 : Error 036 : Error	CU optional RAM check error	Is RAM DIMM installed properly? Does the MFP recover by replacing the RAM DIMM?	No Yes No	Reinstall the RAM DIMM. Replace the RAM DIMM. Replace the CU/ PU board.
Inspection is required. 040 : Error	CU EEPROM error	Is the error display provided again?	Yes	Turn off and on the MFP. Replace the CU/ PU board.
Inspection is required. 041 : Error	CU flash memory error or CU/PU board(CLP) flash ROM error	Is the error display provided again?	Yes	Turn off and on the MFP. Replace the CU/ PU board.
Inspection is required. 042 : Error 043 : Error. 045 : Error	Flash memory file system error	Accessing the flash ROM directly mounted on the CU/ PU board failed.		Turn off and on the MFP. Replace the CU/ PU board.
Power OFF/ON 052 : Error	Image processor driver error	Is the error display provided again?	Yes	Turn off and on the MFP. Replace the CU/ PU board.
Power OFF/ON 054 : Error	A communication error of the scanner unit	A communication error was detected between the Controller and scanner unit.		Record a value displayed far right at the bottom of LCD and turn on the power unit again.
Power OFF/ON 055 : Error	A communication error of the scanner unit	The Controller detected an error after communication between the Controller and scanner unit was established.		Call for service to review the connection between the scanner and printer or to replace the device if the symptom persists after you turn on the power unit again.
Power OFF/ON 057 : Error	The timeout of command communication of the scanner	The timeout of command communication was detected between the Controller and scanner unit (A sub code indicates a cause). 01: There is no ACK for a command to start scanning. 02: There is no ACK for a command to cancel scanning. 03: There is no ACK for a command to cancel SIP.		Record a value displayed far right at the bottom of LCD and turn off/on the power unit.
Power OFF/ON 058 : Error	An error of the scanner controlling area	An internal error was detected in the scanner controlling area ofthe Controller.		Record a value displayed far right at the bottom of LCD and turn off/on the power unit.

Display	Cause	Error details		Measure
Power OFF/ON 059 : Error	A communication error of the scanner unit	The scanner unit detected an error after communication between the Controller and scanner unit was established.		Call for service to review the connection between the scanner and printer or to replace the device if the symptom persists after you turn on the power unit again.
Inspection is required. 064 : Error	SD Card Missing Error	Is a SD Card installed in the unit, properly?		
Inspection is required. 067 : Error 068 : Error	Interface monitor error			
Inspection is required. 069 : Error	NIC Chip Error			
Power OFF/ON 070 : Error	PostScript error	Error is deteced inside the postscript core		Take note of the address that is displayed on LCD. Turn off and on the MFP.
Power OFF/ON 072 : Error *.	Engine interface error or PU-CU interface error	Is the CU/PU board installed properly?	No Yes	Reinstall the CU/ PU board properly. Replace the CU/ PU board.

Display	Cause	Error details		Measure
Power OFF/ON 073 : Error **	Video error. An error was detected in expanding image data (an invalid data was received)	Is the CU/PU board installed properly? Does the error occur again?	No Yes Yes	Reinstall it properly. Change the PC to a high-specification one or decrease the resolution, and perform printing again. Replace the CU/ PU board.
				Replace the interface cable. Reinstall the PC printer driver.
		Is the CU/PU board installed properly? Does the error occur again? Does the error depend on print data?	No Yes Yes No Yes	Reinstall it properly. Perform printing again. Print other data. Replace the CU/PU board. Ask design people to analyze the data.
Power OFF/ON 074 : Error 075 : Error **	Video error. An error was detected in expanding image data.	Is the CU/PU installed properly?	No Yes	Reinstall it properly. Replace it.
Inspection is required. 081 : Error	Parameter matching check error	Reading from or writing into EEPROM or flash memory cannot be made properly.		Turn off and on the MFP. Replace the CU/PU board when the symptom persists.
Inspection is required. 104 : Error	An engine EEPROM read/write error was detected.	Does the error occur again?	Yes	Turn off and on the MFP Replace the CU/PU board.
Inspection is required. 106 : Error	Engine control logic error	Does the error occur again?	Yes	Turn off and on the MFP Replace the CU/PU board.

Display	Cause	Error details		Measure
Inspection is required. 111 : Error	Duplex unit for a different model was detected.	Is Duplex unit for the model installed?	No	Install a correct Duplex unit.
Inspection is required. 112 : Error	The 2nd tray for a model different from the MFP was detected.	Is the 2nd tray for the MFP installed?	No	Install proper 2nd tray.
Inspection is required. 121 : Error	High-voltage power supply interface error	Is the cable between the CU/PU board and the high-voltage power unit connected properly? Is a contact faulty?	No Yes No	Reconnect it properly. Check the high-voltage line for no poor connection. Replace the high-voltage power supply.
Inspection is required. 122 : Error	Rear-fan error	Does the fan at the rear of the MFP operate? Is the connector of the fan connected properly?	No Yes No Yes	Be sure of the connection of the fan. Replace the CU/PU board. Connect the fan properly. Replace the CU/PU board.
Inspection is required. 123 : Error	Ambient humidity error or non connection of humidity sensor	Is the cable from the CU/PU board to the toner sensor board connected properly?	No Yes	Re-connect it properly. Replace the toner sensor board.
Inspection is required. 124 : Error	Ambient temperature error	Is the cable from the CU/PU board to the toner sensor board connected properly?	No Yes	Re-connect it properly. Replace the toner sensor board.
Power Off and Wait for a while 126 : Condensing Error	Condensation on the device was detected.	Condensation is likely to form in such a case that a device is carried in from the outdoors. Leave the device untouched for two hours to a half day and turn on the power unit. Does the error occur again?	Yes	Leave the device untouched and turn on the power unit. Replace a control panel board.

Display	Cause	Error details		Measure
Inspection is required. 127 : Error	An error of exhaust fan of the Fuser	Is the fan's connector properly connected? Does the error occur again?	No Yes No	Connect properly. Replace the fan's motor. Replace the PU board.
Inspection is required. 128 : Error 05	Image drum fan error	Is the connector of the fan connected properly? Does the error occur again?	No Yes No	Re-connect it properly. Replace the fan motor. Replace the CU/PU board.
Inspection is required. 128 : Error 08	Front fan error	Is the connector of the fan connected properly? Does the error occur again?	No Yes No	Re-connect it properly. Replace the fan motor. Replace the CU/PU board.
Inspection is required. 131 : Error ～ 134 : Error	LED head detection error (131=Y, 132=M, 133=C, 134=K)	Is the LED head installed properly? Is the LED head fuse broken? Does the error occur again?	No Yes Yes No Yes	Install the LED head unit. Check the LED head fuse. Check the fuse. Turn off and on the MFP. Replace the LED head unit.
Inspection is required. 142 : Error	Image drum up-down movement position detection error	Is the image drum unit removed and installed smoothly? Is the connector of the image drum up-down clutch is connected properly?	Yes No Yes No	Re-install it. Be sure of the connection of the image drum up-down clutch connector. Replace the toner sensor board. Connect the image drum updown clutch properly.

Display	Cause	Error details		Measure
Inspection is required. 153 : Error	Image drum unit fuse-cut error	Is the image drum unit installed properly? Does the error occur again? Is the MFP recovered by replacing the toner sensor board?	No Yes Yes No	Re-install it. Turn off and on the MFP. Be sure of the cable connection from the CU/PU board to the toner sensor board, and then replace the toner sensor board. Replace the CU/PU board.
Inspection is required. 154 : Error	Belt unit fuse-cut error	Is the belt unit installed properly? Does the error occur again?	No Yes Yes	Re-install it. Turn off and on the MFP. Be sure of cable connection, and then replace the CU/PU board.
Inspection is required. 155 : Error	Fuser unit fuse-cut error	Is the fuser unit installed properly? Does the error occur again?	No Yes Yes	Clean the connection connector of the fuser unit, and then re-install the fuser unit. Turn off and on the MFP. Be sure of cable connection, and then replace the CU/PU board.

Display	Cause	Error details		Measure
Inspection is required. 160 : Error ～ 163 : Error	Toner sensor detection error (160=Y, 161=M, 162=C, 163=K). This error does not occur with the MFP in the factory shipped configuration.	Is the toner cartridge installed? Is the toner slide shutter set?	No No Yes	Install the toner cartridge. Turn it to the fixed position. Turn off and on the MFP. Replace the toner sensor assembly.
Inspection is required. 167 : Error	Thermistor slope error	Does an error message appear? Does the error occur again?	Yes	Turn off and on the MFP. Turn off and on the MFP after leaving it for 30 minutes.
Inspection is required. 168 : Error **	Compensation thermistor error	Does an error message appear? Does the error occur again?	Yes	Turn off and on the MFP. Turn off and on the MFP after leaving it for 30 minutes.
Inspection is required. 169 : Error	An error of the Upper Side Thermistor	Does the error occur again?	Yes	Turn on the power unit. Leave the device for 30 minutes and turn on the power unit again.
Inspection is required. 170 : Error 171 : Error	A fuser thermistor short or open circuit was detected.	Does the error occur again?	Yes	Turn off and on the MFP. Replace the fuser unit.
Inspection is required. 172 : Error 173 : Error	A fuser thermistor temperature error (high or low temperature) was detected.	Does the error occur again? Does the error occur again?	Yes Yes	Turn off and on the MFP. Replace the fuser unit. Replace the low-voltage power supply, and then replace the CU/PU board when the error occurs again.

Display	Cause	Error details		Measure
Inspection is required. 174 : Error	A backup thermistor shot circuit was detected (high temperature)	Does the error occur again?	Yes	Turn off and on the MFP. Replace the fuser unit.
Inspection is required. 175 : Error	A backup thermistor open circuit was detected (low temperature)	Does the error occur again?	Yes	Turn off and on the MFP. Replace the fuser unit.
Inspection is required. 176 : Error 177 : Error	A backup thermistor temperature error (high or low temperature) was detected.	Does the error occur again? Does the error occur again?	Yes Yes	Turn off and on the MFP. Replace the fuser unit. Replace the low-voltage power supply.
Inspection is required. 182 : Error	Option unit I/F error	Does the error occur again? Does the error occur again?	Yes Yes	Turn off and on the MFP. Be sure of connector connection. Replace the option unit.
Power OFF/ON 190 : Error	System memory overflow	Does the error occur again?	Yes	Turn off and on the MFP. Replace the CU/PU board.
Inspection is required. 200 : Error ～ 202 : Error	PU firmware download error	An error occurred in re-writing the PU firmware.		Turn off and on the MFP, and then re-download it (In general use of the MFP, this re-writing is not performed and this error does not occur).

Display	Cause	Error details		Measure
Power OFF/ON 203 : Error 204 : Error 207 : Error 208 : Error 213 : Error 214 : Error F0C : Error FFE : Error FFF : Error	CU program error (203 to 214 do not occur in general use of the MFP)	Invalid processing was performed with a CU program.		Replace the CU/PU board.
Power OFF/ON 209 : Download error	Custom Media Type table downloading failure	Custom Media Type table downloading failed.		Turn off and on the MFP, and then re-download it (In general use of the MFP, this downloading is not performed and this error does not occur).
Inspection is required. 231 : Error *	TAG interface error	IA TAG interface error was detected. 01 : A short-circuit error. 03 : TAG communication error.		Be sure the toner cartridges and the image drums are properly set. Replace the toner cartridges. When the error occurs again after the image drums are re-installed, be sure of the cable connection from the CU/PU board to the toner sensor board.
Power OFF/ON 250 : Error	SD card error			
Inspection is required. 251 : Error	SD card erasure error			
Inspection is required. 252 : Error ～ 255 : Error	SD card security error			

Display	Cause	Error details		Measure
Inspection is required. 256 : Error 257 : Error	SD card error			
Power OFF/ON Error : 802 Error : 803 Error : 805 Error : 807 Error : 808	SU Exception	Does the error occur again?	Yes	Turn off and on the MFP. Replace the SU board.
Power OFF/ON Error : 811 Error : 812 Error : 813	SU Communication Error	Communication error between the Controller and the Scanner Unit is detected.		Turn off and on the MFP.
Power OFF/ON Error : 890	SU System Memory Overflow	Does the error occur again?	Yes	Turn off and on the MFP. Replace the SU board
Power OFF/ON 901 : Error ～ 904 : Error	Belt temperature error 901: Short circuit 902: Open circuit 903: High temperature 904: Low temperature	Is the cable from the belt thermistor to the CU/PU board connected properly? Does the error occur again?	No Yes No	Connect the cable properly. Turn off and on the MFP. Replace the belt thermistor.
Power OFF/ON 918 : Error	An alarm of Duplex Fan was detected.	An error of a fan inside the Duplex. Is it reproduced by turning on thepower unit?	Yes Yes	Review whether or not the Duplex is installed properly. Review whether or not the fan is installed properly. Replace the fan.

Display	Cause	Error details		Measure
Power OFF/ON 923 : Error	A lock error with black image drum	The image drum does not revolve properly. Does the error display is provided again by turning off and on the MFP?	Yes Yes	Be sure the image drum is properly installed properly. Replace the image drum unit. Replace the image drum motor.
Power OFF/ON 928 : Error	Fuser motor lock error	The fuser does not operate properly? Does the error occur again?	Yes Yes	Check that the fuser is properly installed. Replace the fuser. Replace the fuser motor.
Power OFF/ON 933 : Error	Tray-2 CPU clock frequency error			
Power OFF/ON 941 : Error 942 : Error 943 : Error 944 : Error	PU Error	A PU error was detected. 941 : Watch Doc Timer Error 942 : Detection of Unassigned Interruption 943 : CPU Error Detection 944 : Dcon Access Error		Turn off and on the MFP. When this error occurs again, replace the CU/PU board.
Inspection is required. 980 : Error	Media jamming error around fuser.	Media is jammed by entangling around the fuser.		Turn off the MFP. Replace the fuser.
Inspection is required. 983 : Error	Duplicate toner cartridge detection error	Multiple toner cartridges for the same color ware detected.		Install toner cartridges for specified colors at the proper positions.
Inspection is required. 990 : Error	Waste toner sensor detection error	Is the K toner cartridge installed? Does the error occur again?	No Yes	Install the K toner cartridge. Be sure of cable connection, and then perform board replacement.

Note! With the MFP’s temperature not more than 0ºC, Service call errors 168 Error, 171 Error, 175 Error, 903 Error and 904 Error may occur. After turn off the MFP, turn on the MFP after the MFP warms.

7.5.3 Fax Error List

Termination Code List

#	Value (Hex)	Description
1.	0	NORMAL (Ended normally)
2.	1	STOP (A user cancelled a job during sending.)
3.	2	An incoming call was received. The produdre ended unsuccessfully (T1 timeout).
4.	11	Document jam during real time sending
5.	14	Memory Full during RX / Memory Full (Insufficient avaialble memory at the time of receiving. Or exceeded a maximum number of received pages.)
6.	19	FAX ERROR_TX_JOB_DELETED (Cansellation of jobs waiting for sending: Redialing, calling again & resending, and programed sending, including delayed transmission)
7.	1D	Memory Full (Memory full during memory sending or accumulating documents)
8.	21	CONNECTION FAIL (A line wasn't connected or a dial tone wasn't detected at the time of dial calling.)
9.	22	Failed sending during ringing (Conflict between sending and receiving)
		Timeout of T0 timer in Phase-A
		Timeout of T1 timer in Phase-B
		Dial Abort in Phase-D
10.	23	Redial All Failed (when all of redialing was NG)
11.	32	V8 negotiation Fail (Not compatible with a sender in V34 receiving)
12.	35	SUB discrepancy in confidential receiving
13.	36	Box full in confidential receiving
14.	37	SEP discrepancy in bulletin board polling sending
15.	38	The box was unavailabl in bulletin board polling sending.
16.	39	The box was unavailabl in confidential receiving.
17.	40	Retry Out (Sent DCS three times in fax sending and no resoponse.)
18.	41	Too Many FTT (Training failure)
19.	43	T2 Time Out (A machine on the other end didn't respond and T2 timeout.)
20.	45	Phase-B Command Rec Error (Failed to receive a control signal at the time of receiving) (Including SEP discrepancy in bulletin board polling receiving)
21.	46	Phase-B Response Rec Error (Failed to receive a control signal at the time of sending) (Including SUB discrepancy in confidential sending)
22.	47	Phase-B Invalid Command/Response Rx (Received an invalid signal.)
23.	48	A machine on the other end was incapable of receiving.
24.	49	T1 timeout after EOM (T1 timeout after EOM receiving)
25.	4A	Invalid CSI error (Dialing numbers didn't match with ID of the machin on the other end in confirmation sending.)
26.	4B	Invalid TSI error (matches number denied acceptance registered as nuisance fax)
27.	4c	FIF:bit49 of a facing machine's DIS was 0 in confidential sending (A facing machine was incapable of confidential receiving).
28.	4d	FIF:bit47 of a facing machine's DIS was 0 in bulletin board polling receiving (A facing machine was incapable of bulletin board polling sending).
29.	51	Image Data not ready (Decoding or file system error in scanned or received images)
30.	52	Phase-C Time Out (EOL (not in ECM) or Frame (in ECM) timeout occurred during data receiving)
31.	60	Retry Out (A machine on the other end made no response in sending Phase-D. Retry error of post-command.)
32.	65	RNR time out (Time out error of flow control of RR/RNR in sending)
33.	66	RTN/PIN Received, EOR/ERR/DCN (Received RTN/PIN (N-ECM) ERR (ECM))
34.	67	Phase-D Invalid Command/Response Rx (Received an invalid signal.)
35.	69	Phase-D Response Rec Error (Failed to receive a control signal at the time of sending)
36.	6A	EOR error (Received EOR at the time of receiving)
37.	80	MODEM hung-up (Couldn't control a modem)
38.	82	V34 t1 timeout, control channel error (T1 timeout with V34 control channel)
39.	83	V34 t1 timeout, primary channel error (T1 timeout with V34 primary channel)
40.	84	Data not sent until guard timer expire (Timeout at PH-C guard timer)
41.	90	Exceeded the maximum number of digits of dial entry (A maximum of 80 digits after unfolding a dial symbol)

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Note!
- When replacing the CU/PU board(CLP), please read the content on the EEPROM chip of the old board and copy it to the new board. (Refer to 5.6.1 when exchange the CU/PU board(CLP))
- Connection diagram is see Fig1-1.

7.5.4.(1) LCD Display Trouble

(1-1) LCD displays nothing

Check item	Checking	Action in case of fail
(1-1-1) Checking fuse		
Fuse on SU board(MHC)	Check whether F2 has blown.	Replace F2 or SU board(MHC).
(1-1-2) Checking connections		
Connection between low-voltage power supply unit and SU board(MHC)	Make sure the low-voltage power supply unit is connected to the POWER connector on the SU board(MHC) properly. Check whether the cable connector is half-connected or tilted, or whether wires are broken. Check whether there is any fault in the cable assembly, e.g., missing wires.	Connect the cable properly.
Cable assembly connecting low-voltage power supply unit to SU board(MHC)		Replace the cable with a good cable.
Connection between SU board(MHC) and operation panel	Make sure the 16-pin FFC is connected to the OPE connector on the SU board(MHC) properly. Make sure the 16-pin FFC is connected to the CN1 connector on the OPE board(OPM) properly. Check whether the cable connector is half-connected or tilted.	Connect the cable properly.
FFC connecting SU board(MHC) to OPE board(OPM)	Check for broken wires using a tester. Check visually whether the sheath peels.	Replace the cable with a good cable.

Check item	Checking	Action in case of fail
(1-1-3) Checking power supplies		
AC power supplied to the printer	Check the supplied voltage from the AC power source.	Supply AC power.
5V power supplied to SU board(MHC)	Check the 5V power at 3, 4pin of the POWER connector on the SU board(MHC).	Replace the low-voltage power supply.
3.3V power supplied to OPE board(OPM)	Check the 3.3V power at 14pin of the CN1 connector on the OPE board(OPM).	Replace the SU board(MHC).
(1-1-4) Checking for short circuit of power supply		
5V and 24V power supplied to SU board(MHC)	Check for a short circuit using the POWER connector on the SU board(MHC). 7, 8pin: 24V 3, 4pin: 5V 5, 6pin: 0VL 9, 10pin: 0VP If there is a short circuit, locate it. Disconnect the cables from the SU board(MHC) one by one to locate the short circuit.	Replace the short-circuited component.
(1-1-5) Checking LSI operation		
I/F signal from SU board(MHC) to OPE board(OPM)	Check whether signals are output to the OPE connector on the SU board(MHC). 9pin: Transmission data (sent from the SU board(MHC)) 11pin: Clock 13pin: Enabling 15pin: Reset Signals should be always output under normal conditions.	Replace the SU board(MHC).

(1-2) Display of OKI logo

Check item	Checking	Action in case of fail
(1-2-1) Operation panel display does not change.		
Operation panel display	OKI logo stays on.	Replace the SU board(MHC).

(1-3) Error message display

Check item	Checking	Action in case of fail
(1-3-1) Error message		
Error message display	Check the detail of the error on the error message list.	Follow the instructions.

7.5.4.(2) Abnormal MFP operation after powered on

(2-1) No operation

Check item	Checking	Action in case of fail
(2-1-1) Checking power supplies		
AC power supplied to the printer	Check the supplied voltage from the AC power source.	Supply AC power.
5V and 24V power supplied to CU/PU board(CLP)	Check the power supply using the POWER connector on the CU/PU board(CLP). 7, 8, 9pin: 24V 1, 2, 3pin: 5V 4, 5, 6pin: 0VL 10, 11, 12pin: 0VP	Replace the low-voltage power supply.
3.3V, 5V, and 24V power supplied to SU board(MHC)	Check the power supply using the POWER connector on the SU board(MHC). 1pin: 3.3V 3, 4pin: 5V 7, 8pin: 24V 2pin: 0V 5, 6pin: 0VL 9, 10pin: 0VP	Replace the low-voltage power supply.
(2-1-2) Checking connections		
Connection between low-voltage power supply unit and CU/PU board(CLP)	Make sure the low-voltage power supply unit is connected to the POWER connector on the CU/PU board(CLP) properly. Check whether the cable connector is half-connected or tilted, or whether wires are broken. Check whether there is any fault in the cable assembly, e.g., missing wires.	Connect the cable properly.
Cable assembly connecting low-voltage power supply unit to CU/PU board(CLP)		Replace the cable with a good cable.
Connection between low-voltage power supply unit and SU board(MHC)	Do the checking as described in (1-1-2).	Refer to (1-1-2).
Cable assembly connecting low-voltage power supply unit to SU board(MHC)		

(2-2) Abnormal sound

Check item	Checking	Action in case of fail
(2-2-1) Checking for loss of synchronization of motor (driver failure)		
Operation of each motor	Check whether each motor operates properly using the self-diagnosis mode. Check by detection of a load. Noise that sounds like "pooh" is made when there is a fault.	Replace CU/PU board(CLP) and SU board(MHC).
Condition of each motor cable	Check the wiring of each motor. Check for a short circuit by visual check and using a tester. Disconnect the motor cable from the PCB and check the resistance between the FG and each pin of the disconnected cable.	Replace the motor cable. Correct the wiring.
(2-2-2) Checking for loss of synchronization of motor (load by consumables)		
Operation of each motor	Check whether each motor operates properly using the self-diagnosis mode. Check by detection of a load. Noise that sounds like "pooh" is made when there is a fault.	Replace the consumable(s). When testing with a new consumable part, use the fuse keep mode on the system maintenance menu.
(2-2-3) Check for gear jumping (load by consumables)		
Operation of each motor	Check whether each motor operates properly using the self-diagnosis mode. Check by detection of a load. Noise that sounds like "batz batz" is made when there is a fault.	Replace the consumable(s). When testing with a new consumable part, use the fuse keep mode on the system maintenance menu.
Position of consumables	Check visually whether each consumable gear is in place and they engage with one another.	Replace or repair mechanical part(s).
(2-2-4) Checking cable wiring		
Cable wiring around cooling fans	Check whether a cable touches the blades of a fan as the cable is not properly laid. When it does, noise that sounds like "clack clack" is made.	Lay the cable properly.

(2-3) Abnormal odor

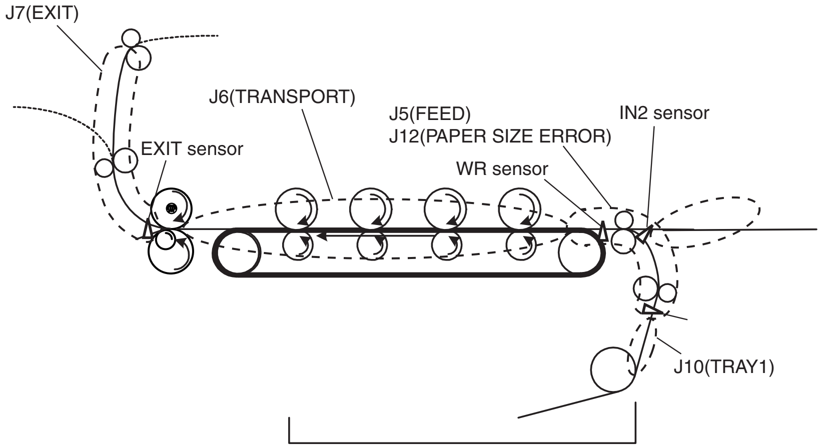
Confirmation Items	Confirmation Tasks	Action at NG
(2-3-1) Locate the position with abnormal odor occurred.		
Fuser unit	Take out the fuser and confirm the odor.	Perform (2-3-2).
Low-voltage power supply unit	Take out the low-voltage power supply unit and confirm the odor.	Exchange low-voltage power supply unit
(2-3-2) Check the condition of fuser.		
Life count of fuser	Confirm the life count of the fuser by the maintenance utility.	It may have abnormal smell around a new printer.
Foreign confirmation of fuser	Confirm whether the fuser is jammed with foreign body such as paper inside.	Remove the foreign body.

(2-4) Slow starting time

Confirmation Items	Confirmation Tasks	Action at NG
(2-4-1) Check a fuser unit		
Halogen lamp	Confirm the wattage of the halogen lamp mounted in the fuser.	Exchange for wattage parts of the rated voltage.
(2-4-2) Check optional parts		
Expansion memory	Reset the optional parts (expansion memory) and recheck the operation.	Exchange optional parts

(3) Error number and jam location at paper jam

Name	Reference	Corresponding	Jam release method
Feed (front cover jam)	J5	IN2, WR	Jam release method ①
Transport (paper feed jam)	J6	IN1, IN2, WR, EXIT	Jam release method ②
Exit (paper reject jam)	J7	EXIT	Jam release method ②
Tray1 (paper feed jam)	J10	IN1	Jam release method ① , ④
Paper size error (paper size error)	J12	IN1	Jam release method ①



Cleaning Paper Jam

⚠ Warning

- If the machine has turned on, the fuser unit may be hot. This area is cleanly labelled. Do not touch

⚠Caution

- The image drum (the green tube) is very delicate.
  Handle it carefully.
- Do not expose the image drum unit to direct sunlight or very bright interior light (approximately more than 1500lux). Even under the normal interior light, do not leave it for more than 5 minutes.

Note! You can also refer to the instructions on how to clear paper jams by pressing the <?HELP> key while the error message is displayed.

Error Code 370, 371

(1) Remove any documents from the document tray.

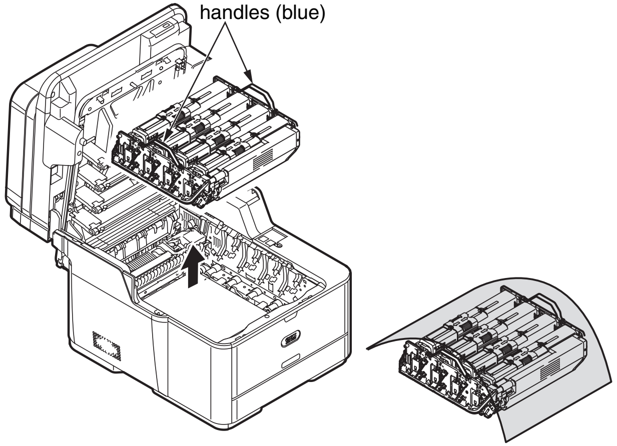
(2) Open the scanner unit.

(3) Press the top cover open button and open the top cover.

Important Touch any screw inside the machine to remove static electricity from your body.

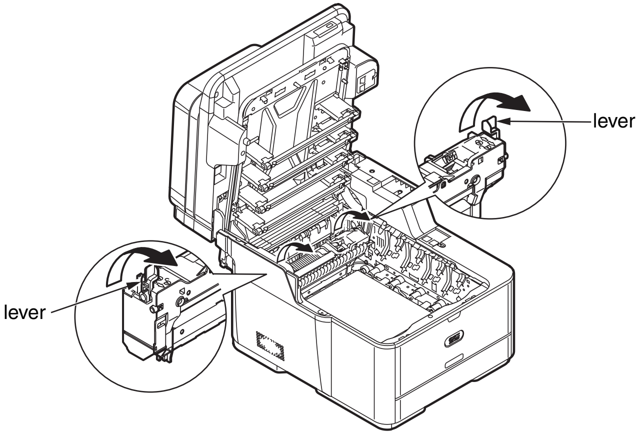
(4) Hold the handles (blue) of the image drum unit with both hands and lift it out of the machine, and then place it on a flat surface.

Cover the image drum unit with black paper or a black bag.

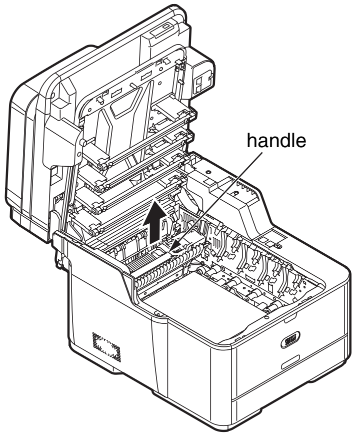


(5) Remove any paper from the belt unit.

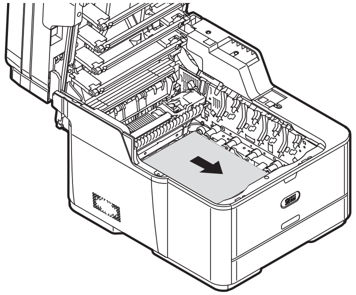
(6) Pull the locking levers on each side of the fuser unit to the "unlock" position.

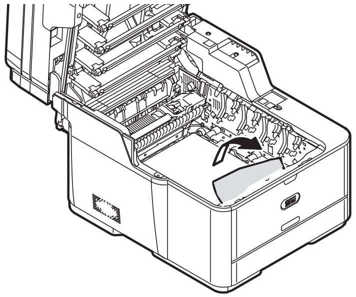


(7) Hold the fuser unit handle and lift the fuser unit out of the MFP.



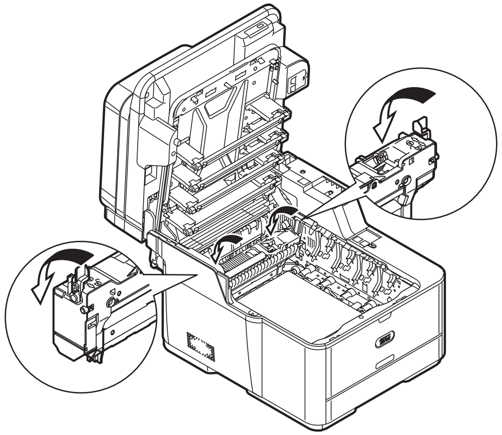
(8) Remove any jammed paper in the direction of the arrow.





(9) Hold the fuser unit handle and place the fuser unit into the MFP.

(10) Push the locking levers on each side of the fuser unit to the "lock" position.



(11) Hold the blue handles of the image drum unit with both hands and place it into the MFP.

(12) Close the top cover and scanner unit.

Error Code 372

(1) Remove any documents from the document tray.

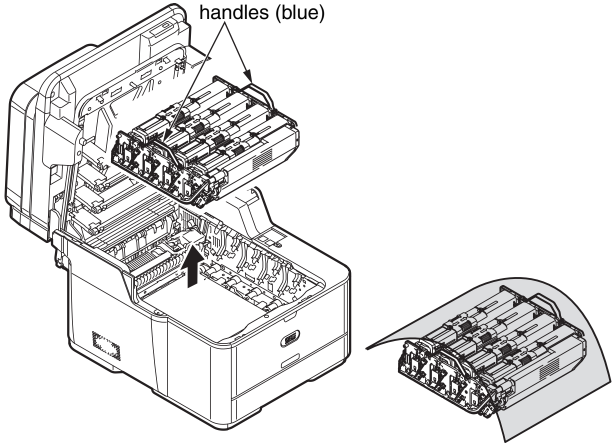
(2) Open the scanner unit.

(3) Press the top cover open button and open the top cover.

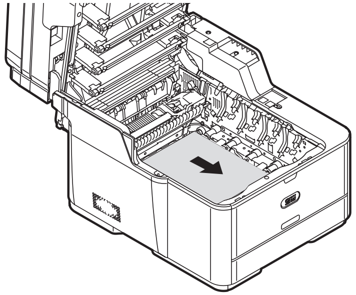
Important Touch any screw inside the machine to remove static electricity from your body.

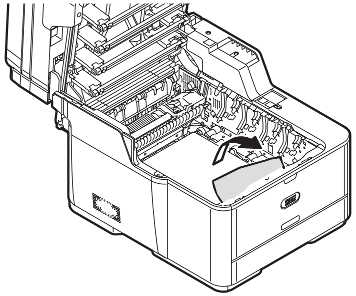
(4) Hold the handles (blue) of the image drum unit with both hands and lift it out of the MFP, and then place it on a flat surface.

Cover the image drum unit with black paper or a black bag.



(5) Remove any jammed paper in the direction of the arrow.

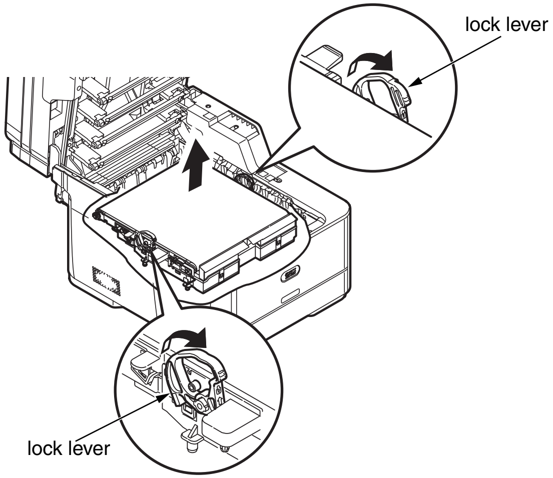




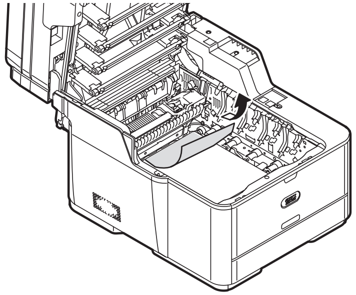
If all the paper comes out, go to step (10).

If the top edge of the paper cannot be seen, go to step (6).

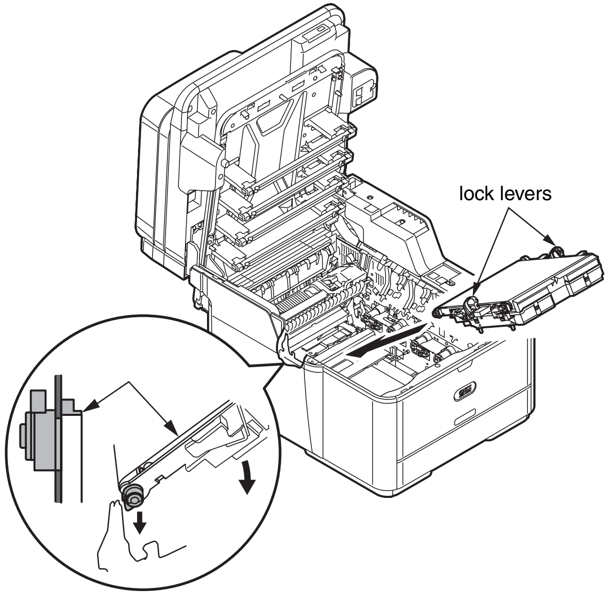
(6) Turn the lock lever on each side of the belt unit toward you, hold the lock levers with both hands and remove the belt unit.



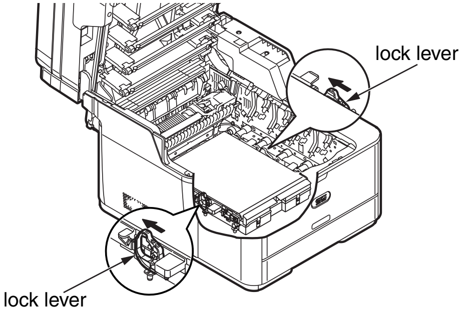
(7) Slowly pull out the paper by the bottom edge.



(8) Hold the lock levers on each side of the belt unit with both hands and place it into the MFP.



(9) Turn the lock levers of the belt unit away from you.



(10) Hold the blue handles of the image drum unit with both hands and place it into the MFP.

(11) Close the top cover and scanner unit.

Error Code 380, 390

(1) Remove any documents from the document tray.

(2) Remove any paper in the MP tray.

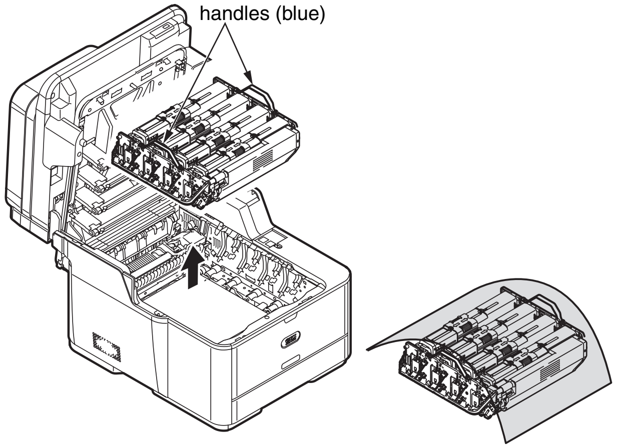
(3) Open the scanner unit.

(4) Press the top cover open button and open the top cover.

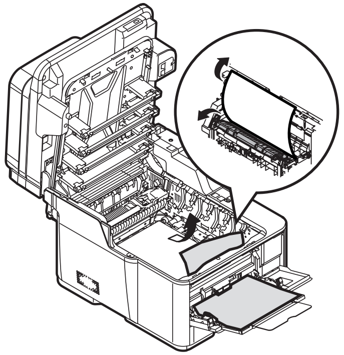
Important Touch any screw inside the MFP to remove static electricity from your body.

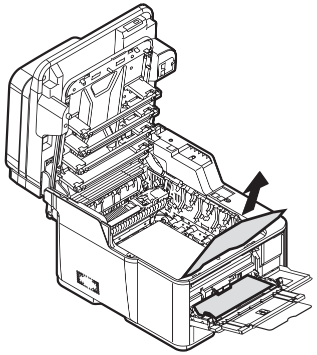
(5) Hold the handles (blue) of the image drum unit with both hands and lift it out of the MFP, and then place it on a flat surface.

Cover the image drum unit with black paper or a black bag.

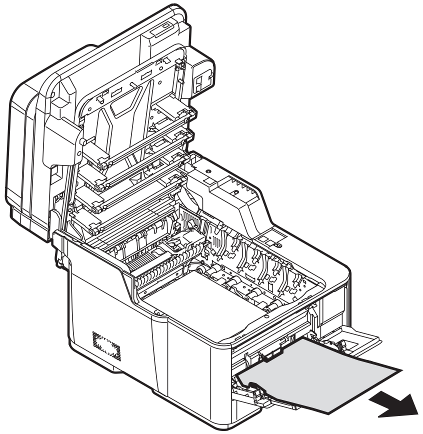


(6) Hold jammed paper by the top edge, and gently pull it out.





If the top edge of the paper cannot be seen, slowly pull out the paper with by the bottom edge.



(7) Hold the blue handles of the image drum unit with both hands and place it into the MFP.

(8) Close the top cover and scanner unit.

Error Code 381, 382, 385

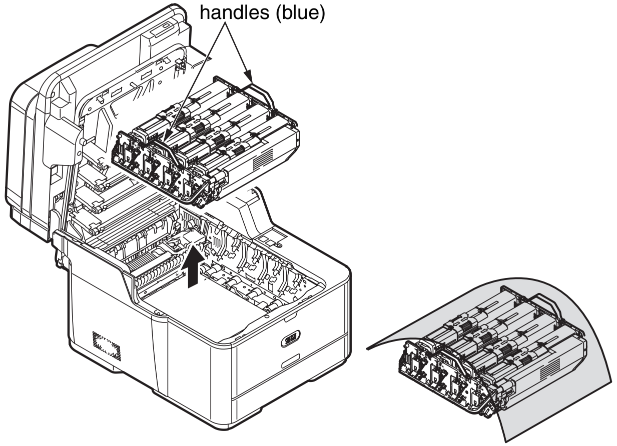
(1) Remove any documents from the document tray.

(2) Open the scanner unit.

(3) Press the top cover open button and open the top cover.

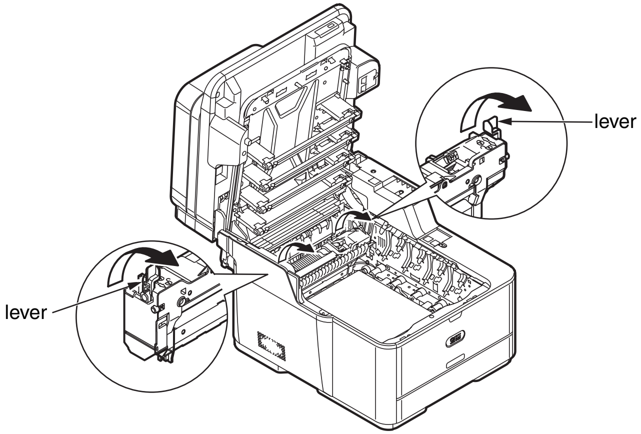
Important Touch any screw inside the MFP to remove static electricity from your body.

(4) Hold the blue handles of the image drum unit with both hands and lift it out of the MFP, and then place it on a flat surface.
Cover the image drum unit with black paper or a black bag.

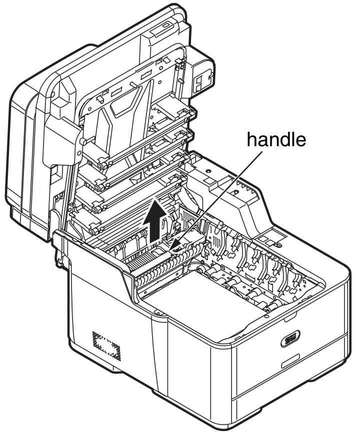


(5) Remove any paper from the belt unit.

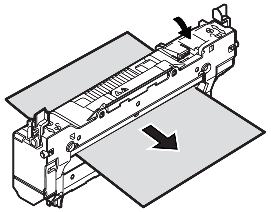
(6) Pull the locking levers on each side of the fuser unit to the "unlock" position.



(7) Hold the fuser unit handle and lift the fuser unit out of the MFP.

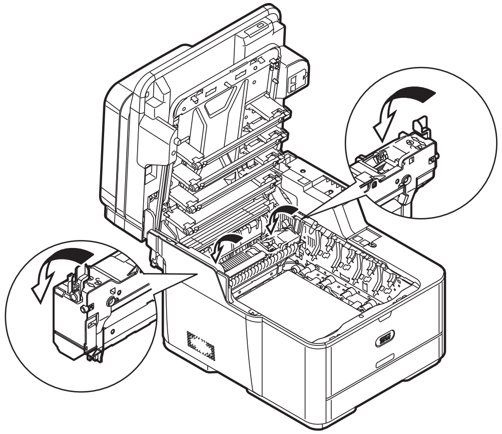


(8) While pushing the jam release lever of the fuser unit, gently pull jammed paper directly outward.



(9) Hold the fuser unit handle and place the fuser unit into the MFP.

(10) Push the locking levers on each side of the fuser unit to the 'lock' position.



(11) Hold the blue handles of the image drum unit with both hands and place it into the MFP.

(12) Close the top cover and scanner unit.

Error Code 389

(1) Remove any documents from the document tray.

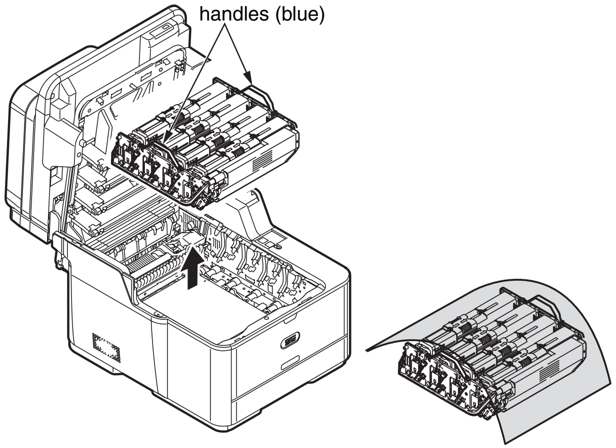
(2) Open the scanner unit.

(3) Press the top cover open button and open the top cover.

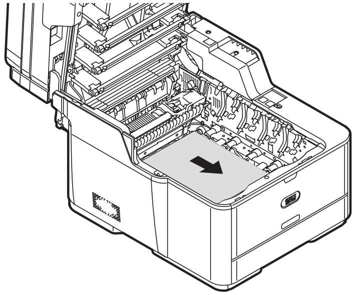
Important Touch any screw inside the machine to remove static electricity from your body.

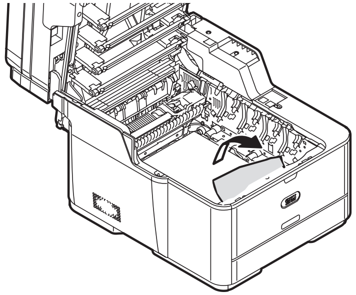
(4) Hold the blue handles of the image drum unit with both hands and lift it out of the MFP, and then place it on a flat surface.

Cover the image drum unit with black paper or a black bag.

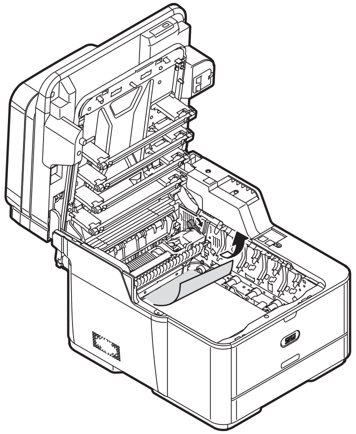


(5) Remove any jammed paper in the direction of the arrow.





If the top edge of the paper cannot be seen, push the jam release lever of the fuser unit and then gently pull out the paper.



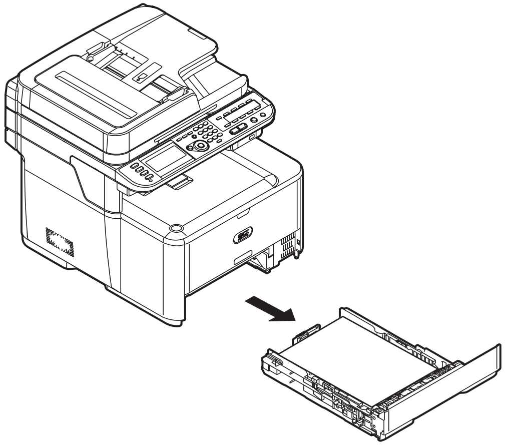
(6) Hold the blue handles of the image drum unit with both hands and place it into the MFP.

(7) Close the top cover and scanner unit.

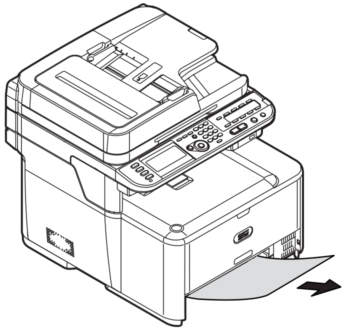
Error Code 391, 392

Note! The following images use tray 1 as an example, but the same procedure applies to tray 2.

(1) Pull out and remove the paper cassette of the indicated tray.



(2) Remove jammed paper.



(3) Push the paper cassette back into the tray.

(4) Open the scanner unit.

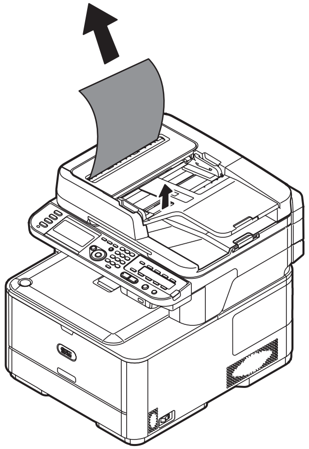
(5) Open and close the top cover.

(6) Close the scanner unit.

Document Jam

In the Duplex Paper Path

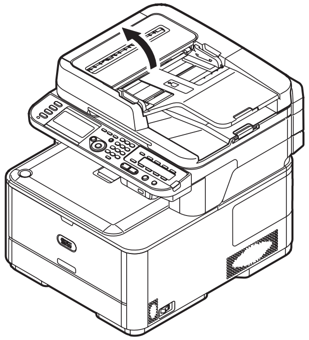
(1) While opening the ADF cover, pull out the document from the duplex paper path.



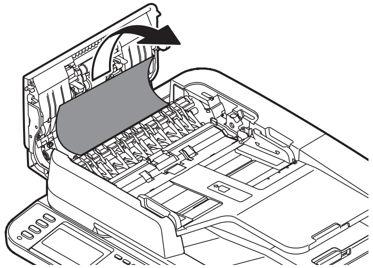
Inside the ADF

(1) Remove any documents from the document tray.

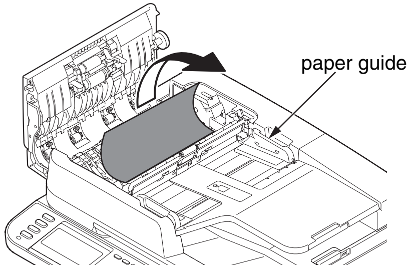
(2) Open the ADF cover.



(3) Hold jammed document by the top edge, and gently pull it out.

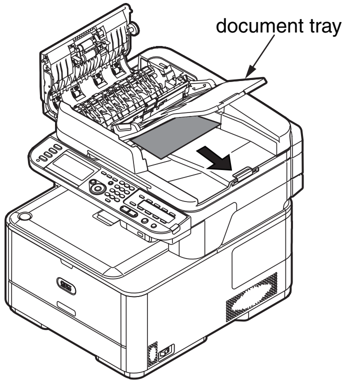


If the edge of the document can been seen under the paper guide, lift the paper guide and then pull out the document.



If the edge of the document cannot be seen in the ADF, lift the document tray and then pull out the document.

Pull down the document tray.



(4) Close the ADF cover.

7.5.4. (3) Paper feed jam (error code 391: 1st tray)

(3-1) Jam occurs immediately after the power is turned on. (1st tray)

Check item	Check operation	Actions for NG results
(3-1-1) Check condition of the paper running path		
Paper running path of the front unit	Open the front cover check if paper is not jammed in the paper running path.	Remove the jammed paper.
(3-1-2) Check condition of the mechanical parts		
Hopping sensor and IN sensor lever check	Check the sensor lever shapes and operations for any problem.	Replace the sensor lever(s) with proper one(s).
(3-1-3) Check condition of electrical parts		
Check the detection condition of the sensor signal.	Confirm that the sensor signals are normally detected by using the Maintenance Menu SWITCH SCAN function.	Replace the CU/PU board, or appropriate sensor(s) or connection cord(s)
Hopping sensor and IN sensor output level check	Check the following signals by using the CU/PU board HPSNS ⑮ and RGSNS connector ⑯ : HPSNS pin 2: Hopping sensor RGSNS pin 5: IN sensor Check that the above signal levels are changed by operating the levers of the sensors.	Replace the CU/PU board.

(3-2) Jam occurs immediately after the paper feed is started. (1st tray)

Check item	Check operation	Actions for NG results
(3-2-1) Check condition of the paper running path		
Paper running path of the front unit	Check if paper is jammed or not in the paper running path.	Remove the jammed paper.
(3-2-2) Check condition of the mechanical parts		
Hopping sensor and IN sensor lever check	Check the sensor lever shapes and operations for any problem.	Replace the sensor lever(s) with proper one(s).
Check the separator assemblies of the feed roller, the pickup roller and the tray.	Check if any foreign materials such as paper dust on the surface of the feed roller or of the pickup roller or not.	Remove the foreign material.
	Check if the feed roller or the pickup roller has worn out or not.	Replace the separator assemblies of the feed roller, pickup roller and tray.
(3-2-3) Motor operation check		
Paper feed motor	Confirm that the paper feed motor works normally by using the Motor & Clutch Test of the self-diagnostic mode.	Replace the CU/PU board or the paper feed motor.
Paper feed motor driver	Pull out the CU/PU board HOP connector ① , and check the following at the side of the connector. Several MΩ between pin-1 – FG. Several MΩ between pin-2 – FG. Several MΩ between pin-3 – FG. Several MΩ between pin-4 – FG.	Replace the CU/PU board.

Check item	Check operation	Actions for NG results
(3-2-4) Check the system connection		
Paper feed motor drive cable	Check the connection condition of the cable. Check if the connector is connected in the half-way only or not, and check if the connector is inserted in a slanted angle or not. Check also that cables are assembled without any abnormality.	Replace the cable with the good cable that normalizes the connection condition.
Paper feed motor drive cable	Check that any cable is not pinched during assembling of the printer. Pull out the CU/PU board HOP connector ① , and check the following at the side of the connector. Short circuit between pin-1 – FG Short circuit between pin-2 – FG Short circuit between pin-3 – FG Short circuit between pin-4 – FG	Replace the cable with the good cable that normalizes the connection condition.
Paper feed motor	Remove the HOP connector ① of the CU/PU board and check that approx. 3.4Ω can be measured between pin-1 -pin-2 at the cable end, and that approx. 5Ω can be measured between pin-3 -pin-4 respectively.	Replace the paper feed motor.
(3-2-5) Solenoid operation check		
Feed clutch	Confirm that the paper feed solenoid works normally by using the Motor & Clutch Test of the self-diagnostic mode. Pull out the cassette for the rollers to be seen, and check operation.	Replace the CU/PU board or the feed solenoid.

Check item	Check operation	Actions for NG results
(3-2-6) Check the system connection		
Feed clutch cord	Check the connection condition of the cable. Check if the connector is connected in the half-way only or not, and check if the connector is inserted in a slanted angle or not. Check also that cables are assembled without any abnormality.	Replace the cable with the good cable that normalizes the connection condition.
Cord for feed clutch	Check that any cable is not pinched during assembling of the printer. Pull out the CU/PU board HOC connector ⑭ , and check the following at the side of the cord.	Replace the clutch and properly assemble appropriate parts.

7.5.4. (4) Feed jam (error code 380)

(4-1) Jam occurs immediately after the power is turned on.

Check item	Check operation	Actions for NG results
(4-1-1) Check condition of the paper running path		
Paper running path of the front unit	Open the front cover check if paper is not jammed in the paper running path.	Remove the jammed paper.
(4-1-2) Check condition of the mechanical parts		
Hopping sensor, IN sensor and WR sensor lever check	Check the sensor lever shapes and operations for any problem.	Replace the sensor lever(s) with proper one(s).
(4-1-3) Check condition of electrical parts		
Check the detection condition of the sensor signal.	Confirm that the sensor signals are normally detected by using the Maintenance Menu SWITCH SCAN function.	Replace the CU/PU board or appropriate connection cords.
Hopping sensor, IN sensor and WR sensor output level check	Check the following signals by using the CU/PU board HPSNS ⑮ and RGSNS connector ⑯ : HPSNS pin 2: Hopping sensor RGSNS pin 5: IN sensor RGSNS pin 2: WR sensor Confirm that the above signal levels change when the sensor lever is operated.	Replace the appropriate sensor(s).

(4-2) Jam occurs immediately after the paper feed is started.

Check item	Check operation	Actions for NG results
(4-2-1) Check condition of the paper running path		
Paper running path of the front unit	Check if paper is jammed or not in the paper running path.	Remove the jammed paper.
(4-2-2) Check condition of the mechanical parts		
Hopping sensor, IN sensor and WR sensor lever check	Check the sensor lever shapes and operations for any problem	Replace the sensor lever(s) with proper one(s).
(4-2-3) Motor operation check		
Paper feed motor	Confirm that the paper feed motor works normally by using the Motor & Clutch Test of the self-diagnostic mode.	Replace the CU/PU board or the feed motor.
Paper feed motor driver	Pull out the CU/PU board HOP connector ① , and check the following at the side of the connector: Several MΩ between pin-1 – FG Several MΩ between pin-2 – FG Several MΩ between pin-3 – FG Several MΩ between pin-4 – FG	Replace the CU/PU board.

Check item	Check operation	Actions for NG results
(4-2-4) Check the system connection		
Paper feed motor drive cable	Check the connection condition of the cable. Check if the connector is connected in the half-way only or not, and check if the connector is inserted in a slanted angle or not. Check also that cables are assembled without any abnormality.	Replace the cable with the good cable that normalizes the connection condition.
Paper feed motor drive cable	Check that any cable is not pinched during assembling of the printer. Pull out the CU/PU board HOP connector ① , and check the following at side of the cord: Short circuit between pin-1 – FG Short circuit between pin-2 – FG Short circuit between pin-3 – FG Short circuit between pin-4 – FG	Replace the cable with the good cable that normalizes the connection condition.
Paper feed motor	Pull out the CU/PU board HOP connector ① , and check whether there is a resistance of approximately 3.4Ω or 5Ω between the pins 1 and 2, and between the pins 3 and 4, at the cord side.	Replace the paper feed motor.

7.5.4. (5) Paper feed jam (error code 390: Multipurpose tray)

(5-1) Jam occurs immediately after the power is turned on. (Multipurpose tray)

Check item	Check operation	Actions for NG results
(5-1-1) Check condition of the paper running path		
Paper running path of the multipurpose tray	Check if paper is jammed or not in the paper running path.	Remove the jammed paper.
(5-1-2) Check condition of the mechanical parts		
IN sensor and WR sensor lever check	Check the sensor lever shapes and operations for any problem	Replace the sensor lever(s) with proper one(s)
(5-1-3) Check condition of electrical parts		
Check the detection condition of the sensor signal.	Confirm that the sensor signals are normally detected by using the SWITCH SCAN function of the self-diagnostic mode.	Replace the CU/PU board, or appropriate sensor(s) or connection cord(s).
In sensor and WR sensor output level check	Check the following signals by using the CU/PU board RGSNS connector ⑯ : Pin 2: WR sensor Pin 5: IN sensor Confirm that the above signal levels change when the sensor lever is operated.	Replace the connection cable.

(5-2) Jam occurs immediately after paper feed is started. (Multipurpose tray)

Check item	Check operation	Actions for NG results
(5-2-1) Check condition of the paper running path		
Paper running path of the multipurpose tray	Check if paper is jammed or not in the paper running path.	Remove the jammed paper.
Sheet Receive of the multipurpose tray	Confirm that the Sheet Receive has moved up normally. Confirm that the support spindle and spring of the Sheet Receive have been installed in the specified positions normally.	Correct installation of the above parts so that the Sheet Receive moves up to the specified position normally.
(5-2-2) Check condition of the mechanical parts		
IN sensor and WR sensor lever check	Check the sensor lever shapes and operations for any problem	Replace the sensor lever(s) with proper one(s).
Front cover	Confirm that the locks in the right and left of the front cover are locked normally.	Replace the font cover assembly
Check the feed roller and the pickup roller.	Check if any foreign materials such as paper dust on the surface of the feed roller or of the pickup roller or not.	Remove the foreign material.
	Check if the feed roller has worn out or not.	Replace the feed roller.
(5-2-3) Motor operation check		
Paper feed motor	Confirm that the paper feed motor works normally by using the Motor & Clutch Test of the self-diagnostic mode.	Replace the CU/PU board or the feed motor.
Paper feed motor driver	Pull out the CU/PU board HOP connector ①, and check the following at the side of the connector: Several MΩ between pin-1 – FG Several MΩ between pin-2 – FG Several MΩ between pin-3 – FG Several MΩ between pin-4 – FG	Replace the CU/PU board.
(5-2-4) Check the system connection		
Paper feed motor drive cable	Check the connection condition of the cable. Check if the connector is connected in the half-way only or not, and check if the connector is inserted in a slanted angle or not. Check also that cables are assembled without any abnormality.	Replace the cable with the good cable that normalizes the connection condition.
Paper feed motor drive cable	Check that any cable is not pinched during assembling of the printer. Pull out the CU/PU board HOP connector ①, and check the following at side of the cord: Short circuit between pin-1 – FG Short circuit between pin-2 – FG Short circuit between pin-3 – FG Short circuit between pin-4 – FG	Replace the cable with the good cable that normalizes the connection condition.
Paper feed motor	Pull out the CU/PU board HOP connector ①, and check whether there is a resistance of approximately 3.4Ω or 5Ω between the pins 1 and 2 and between the pins 3 and 4.	Replace the paper feed motor.

7.5.4. (6) Paper running jam (error code 381)

(6-1) Jam occurs immediately after the power is turned on.

Check item	Check operation	Actions for NG results
(6-1-1) Check condition of the running path.		
Paper running path of the front unit	Check if paper is jammed or not in the paper running path.	Remove the jammed paper.
(6-1-2) Check condition of the mechanical parts		
Check the sensor lever of the WR sensor.	Check if shape and movement of the sensor levers have any abnormality or not.	Replace the sensor lever with the good sensor lever.
(6-1-3) Check condition of electrical parts		
Check the detection condition of the sensor signal.	Confirm that the sensor signals are normally detected by using the SWITCH SCAN function of the self-diagnostic mode.	Replace the CU/PU board, or appropriate sensor(s) or connection cord(s).
Check the sensor lever of the WR sensor.	Check the following signal by using the CU/PU board RGSNS connector ⑯ :	Replace the sensor.

(6-2) Jam occurs immediately after a paper is taken into printer.

Check item	Check operation	Actions for NG results
(6-2-1) Check condition of the paper running path		
Paper running path on the belt.	Remove the ID unit and check if paper is jammed or not in the paper running path.	Remove the jammed paper.
(6-2-2) Check condition of the mechanical parts		
Check the sensor lever of the WR sensor.	Check if shape and movement of the sensor levers have any abnormality or not.	Replace the sensor lever with the good sensor lever.
(6-2-3) Motor operation check		
Paper feed motor driver, belt motor driver and ID motor	Confirm that the paper feed motor, belt motor and ID motor work normally by using the Motor & Clutch Test of the self-diagnostic mode. Check if any load exists or not.	Feed motor driving cord, image drum motor driving cord, belt motor, fuser driving cord If any attempt of using new ID unit or new belt unit as a trial is going to be made, be sure to use the System Maintenance Menu FUSE KEEP MODE.
Paper feed motor, belt motor	Pull out the CU/PU board BELT connector ③, and check the following at the side of the connector: Several MΩ between Pin 1 and frame ground Several MΩ between Pin 2 and frame ground Several MΩ between Pin 3 and frame ground Several MΩ between Pin 4 and frame ground Pull out the CU/PU board HOP connector ①, and check the following at the side of the connector: Several MΩ between pin-1 – FG Several MΩ between pin-2 – FG Several MΩ between pin-3 – FG Several MΩ between pin-4 – FG	Replace the CU/PU board.

Check item	Check operation	Actions for NG results
(6-2-4) Check the system connection		
Feed motor driving cord, image drum motor driving cord, belt motor, fuser driving cord	Check the connection condition of the cables. CU/PU board HOP connector ①, DC ID connector ② , DCHEAT connector ④ , BELT connector ③. Check if the connector is connected in the half-way only or not, and check if the connector is inserted in a slanted angle or not. Check also that cables are assembled without any abnormality.	Normalize the connection condition. Replace the cable with the normal cable.
Feed motor driving cord, image drum motor driving cord, belt motor driving cord	Check that any cable is not pinched during assembling of the printer. Pull out the CU/PU board BELT connector ③, and check the following at the sides of the cords: Short circuit between pin-1 – FG Short circuit between pin-2 – FG Short circuit between pin-3 – FG Short circuit between pin-4 – FG Pull out the CU/PU board HOP connector ①, and check the following at the side of the cords: Short circuit between pin-1 – FG Short circuit between pin-2 – FG Short circuit between pin-3 – FG Short circuit between pin-4 – FG	Replace the cable with the good cable that normalizes the connection condition.
Feed motor, belt motor	Remove the respective connectors from the board, and confirm that the following resistance exists between the corresponding pins, at the cable side. CU/PU board HOP connector ① Between pin-1-pin-2 Approx. 3.4Ω or approx. 5Ω. Between pin-3-pin-4 Approx. 3.4Ω or approx. 5Ω. CU/PU board BELT connector ③ Between pin-1-pin-2 Approx. 6.1Ω or approx. 3.5Ω. Between pin-3-pin-4 Approx. 6.1Ω or approx. 3.5Ω. Between pin-5-pin-6 Approx. 3.4Ω or approx. 5Ω. Between pin-7-pin-8 Approx. 3.4Ω or approx. 5Ω.	Replace paper feed motor, belt motor, ID Up motor.

(6-3) Jam occurs in the middle of paper running path.

Check item	Check operation	Actions for NG results
(6-3-1) Motor operation check		
Paper feed motor driver, belt motor driver and ID motor	Confirm that the paper feed motor, belt motor and ID motor work normally by using the Motor & Clutch Test of the self-diagnostic mode. Check if any load exists or not.	Replace: the CU/PU board; the feed motor, the belt motor and the image drum motor; or the image drum unit and the belt unit. If any attempt of using new ID unit or new belt unit as a trial is going to be made, be sure to use the System Maintenance Menu FUSE KEEP MODE.
Paper feed motor, belt motor	Pull out the CU/PU board BELT connector ③, and check the following at the side of the connector: Several MΩ between Pin 1 and frame ground Several MΩ between Pin 2 and frame ground Several MΩ between Pin 3 and frame ground Several MΩ between Pin 4 and frame ground Pull out the CU/PU board HOP connector ①, and check the following at the side of the connector: Several MΩ between pin-1 – FG Several MΩ between pin-2 – FG Several MΩ between pin-3 – FG Several MΩ between pin-4 – FG	Replace the CU/PU board

(6-4) Jam occurs immediately after paper has reached the fuser.

Check item	Check operation	Actions for NG results
(6-4-1) Motor operation check		
Fuser motor	Confirm that the fuser motor works normally by using the Motor & Clutch Test of the self-diagnostic mode. Check if any load exists or not.	Replace the CU/PU board. Replace the fuser motor. Replace the fuser unit. If any attempt of using new fuser unit as a trial is going to be made, be sure to use the System Maintenance Menu FUSE KEEP MODE.
(6-4-2) Temperature control of the roller rotation speed		
Heat roller detected temperature	Check the detected temperature of the heat roller using the self-diagnostic mode. Is abnormally high temperature or abnormally temperature detected?	Replace the fuser unit and the CU/PU board. f any attempt of using new fuser unit as a trial is going to be made, be sure to use the System Maintenance Menu FUSE KEEP MODE.
(6-4-3) Check the installation condition of fuser unit		
Fuser unit	Check that the fuser unit is installed normally. (Is it pushed in down to the bottom-most point?)	Install the fuser unit correctly in a printer.

7.5.4. (7) Paper unloading jam (error code 382)

(7-1) Paper unloading jam occurs immediately after the power is turned on.

Check item	Check operation	Actions for NG results
(7-1-1) Check condition of the paper running path		
Paper running path of the paper unloading unit	Check if paper is jammed or not in the paper running path.	Remove the jammed paper.
(7-1-2) Check condition of the mechanical parts		
EXIT sensor lever check	Check if shape and movement of the sensor levers have any abnormality or not.	Replace the sensor lever with the good sensor lever.
(7-1-3) Check condition of electrical parts		
Check the detection condition of the sensor signal.	Confirm that the sensor signals are normally detected by using the SWITCH SCAN function of the self-diagnostic mode.	Replace: the CU/PU board, or the EXIT sensor and its cord or connection cord.
Check the output signal level of the EXIT sensor.	Check the following signal by using the CU/PU board EXIT connector ⑧ : Pin-9: EXIT sensor Confirm that the above signal levels change when the sensor lever is operated.	Replace the EXIT sensor.
(7-1-4) Check the system connection		
EXIT sensor cord	Confirm that the cables are not pinched, sheathes are not peeled off, and they are assembled normally.	Replace the connecting cable and normalize the assembled condition.

(7-2) Paper unloading jam occurs after a paper is taken into printer.

Check item	Check operation	Actions for NG results
(7-2-1) Check condition of the paper running path		
Face Up Stacker Cover	Confirm that it is either fully opened or fully closed	Eliminate any in-between condition of the cover between the fully open position and fully closed position.
Rear panel	Check that the installation condition of the rear panel hampers smooth movement of a paper in the paper running path, or not.	Remove the rear panel and re-install it.
Paper running path of unloading unit	Check that any mechanical load does not exist that hampers the smooth movement of paper in the paper running path of the paper unloading unit, by the visual inspection. Check if the paper unloading motor becomes difficult to rotate or not.	Correct the portion that becomes mechanical load.
(7-2-2) Check condition of the mechanical parts		
Sensor lever of the paper exit sensor	Check if shape and movement of the sensor levers have any abnormality or not.	Replace the sensor lever with the good sensor lever.
(7-2-3) Motor operation check		
Fuser motor	Confirm that the fuser motor works normally by using the Motor & Clutch Test of the self-diagnostic mode. Check if any load exists or not.	Replace the CU/PU board, the fuser motor or the fuser unit. fuser unit as a trial is going to be made, be sure to use the System Maintenance Menu FUSE KEEP MODE.
(7-2-4) Check the system connection		
Fuser motor drive cable	Check the connection condition of the cables. Visually check whether the CU/PU board DCHEAT connector ④ is connected half or inserted skewed or its cord assembly is improper.	Replace the cable with the good cable that normalizes the connection condition.

(7-3) Paper unloading jam occurs in the middle of paper running path.

Check item	Check operation	Actions for NG results
(7-3-1) Motor operation check		
Fuser motor	Confirm that the fuser motor works normally by using the Motor & Clutch Test of the self-diagnostic mode. Check if any load exists or not.	Replace the CU/PU board, the fuser motor or the fuser unit. If any attempt of using new fuser unit as a trial is going to be made, be sure to use the System Maintenance Menu FUSE KEEP MODE.

7.5.4. (8) Two-sided printing jam (error code 370, 371, 372, 373, 383)

(8-1) Two-sided printing jam occurs immediately after the power is turned on.

Check item	Check operation	Actions for NG results
(8-1-1) Check condition of the paper running path		
Paper running path of the Duplex unit	Check if paper is jammed or not in the paper running path. Open the front cover and check if any paper remains in the Duplex feeder or not. Open the rear cover and check if any paper remains in the paper reversing path or not. Remove the Duplex unit. Check if any paper exists in the Duplex insertion slot or not. Open the cover of the Duplex paper running path and check if any paper remains inside of the Duplex unit.	Remove the jammed paper.
(8-1-2) Check condition of the mechanical parts		
Check the sensor levers of the respective sensors of the Duplex unit.	Check if shape and movement of the sensor levers have any abnormality or not.	Replace the sensor lever with the good sensor lever.
(8-1-3) Check condition of electrical parts		
Check the detection condition of the sensor signal.	Confirm that the sensor signals are normally detected by using the SWITCH SCAN function of the self-diagnostic mode. Check sensor detection with paper in the duplex unit, and with it removed from the duplex unit.	Replace the defective sensor or connection cable.

(8-2) Two-sided printing jam occurs during taking in the paper into Duplex unit.

Check item	Check operation	Actions for NG results
(8-2-1) Sensor lever operation check		
DUP-R sensor lever	Open the top cover, remove the image drums and the belt unit, and touch the DUP-R sensor lever to check whether it moves smoothly.	Replace the DUP-R sensor lever.
DUP-IN sensor	Confirm that the sensor signals are normally detected by using the SWITCH SCAN function of the self-diagnostic mode.	Replace the CU/PU board, or appropriate sensor(s) or connection cord(s).

Check item	Check operation	Actions for NG results
(8-2-2) Check condition of the paper running path		
Paper inverting transport path	Check that any foreign materials such as paper chip or blue do not exist that hampers the smooth movement of paper in the paper inverting transport path.	Remove the foreign material.
(8-2-3) Motor operation check		
Duplex pull-in/ reversing roller and its pinch roller	Check if the pull-in/reversing roller of the Duplex unit contacts or not with the pinch roller of the cover side when the Duplex rear cover is closed. (Does the pinch roller rotate when the roller is rotating?)	Replace the rear cover.

(8-3) Two-sided printing jam occurs in the process of reversing paper.

Check item	Check operation	Actions for NG results
(8-3-1) Sensor lever operation check		
DUP-R sensor lever	Open the rear cover. Touch the DUP-R sensor lever to check if its movement is unsmooth or not.	Replace the DUP-R sensor lever
DUP-R sensor	Confirm that the sensor signals are normally detected by using the SWITCH SCAN function of the self-diagnostic mode.	Replace the CU/PU board, the sensor or its connection cord.
(8-3-2) Motor operation check		
Fuser motor	Visually check whether paper started being reversed. When no paper reversing operation has performed, check whether the planet gear at the lower right side of the fuser moves smoothly.	Replace the planetary gear.

(8-4) Two-sided printing jam occurs during transporting paper inside the Duplex unit.

Check item	Check operation	Actions for NG results
(8-4-1) Sensor lever operation check		
Dup-R, Dup-F sensor lever	Open the top cover, remove the image drums and the belt unit and check the operation of the DUP-F sensor lever.	Replace the sensor lever.
(8-4-2) Sensor check		
Check the detection condition of the sensor signal	Confirm that the sensor signals are normally detected by using the SWITCH SCAN function of the self-diagnostic mode. Check sensor detection with paper in the duplex unit, and with it removed from the duplex unit.	Replace the CU/PU board, appropriate sensor(s) or connection cord(s).

(8-5) Paper is not supplied from the Duplex unit to the regist roller.

Check item	Check operation	Actions for NG results
(8-5-1) Clutch operation check		
Duplex clutch	Confirm that the Duplex clutch works normally by using the Motor & Clutch Test of the self-diagnostic mode.Confirm it by listening to the sound.	Replace the CU/PU board or the clutch.

7.5.4. (9) Paper size error (error code 400)

(9-1) Jam occurs when paper end is located near the IN1 sensor.

Check item	Check operation	Actions for NG results
(9-1-1) Check paper feed condition		
Multifeed of papers	Open the front cover and check if multifeed of papers occurs or not.	If the multifeed occurs again after the jammed paper is removed, replace the flap of the tray in use.
Paper size	Does the paper size specified for print match the paper size of paper stuck in the tray.	Change the specified paper size or size of paper inside the tray.
Hopping sensor	Check if shape and movement of the sensor levers have any abnormality or not.	Replace the sensor lever with the good sensor lever.

7.5.4. (10) ID unit Up/Down error (Service call 142)

(10-1) Error occurs during the Up movement of the ID unit

Check item	Check operation	Actions for NG results
(10-1-1) Check the mechanical load during the Up movement		
Mechanical load during installation and removal of the ID unit	Check if abnormal heavy load is applied when removing the ID unit.	IReplace the ID unit, or replace the right/left side plate. If any attempt of using new ID unit as a trial is going to be made, be sure to use the System Maintenance Menu FUSE KEEP MODE.
Greasing to the right and left Up/Down link levers	Check if the slant surface of the link lever is coated by grease or not.	Apply grease.
Assembled condition of the right and left Up/Down link levers	Check if any part exists or not in the vicinity of link lever, that hampers movement of the link lever.	Assemble them correctly.
(10-1-2) Up/Down mechanism		
Assembled condition of the peripheral mechanism of the link lever	Is the mechanism assembled so that the link lever is connected to the driving gear?	Assemble them correctly.
Right and left link levers	Check if the link lever is set in the correct position that enables the specified engagement of gears. (Check if the link lever is set in the wrong position that results in the wrong engagement of gears by several teeth.)	Assemble them correctly.

Check item	Check operation	Actions for NG results
(10-1-3) Sensor check		
Up/Down sensor lever (unified structure with the left link lever)	Check if shape and movement of the sensor levers have any abnormality or not.	Replace the left link lever.
Up/Down sensor	Confirm that the sensor signals are normally detected by using the SWITCH SCAN function of the self-diagnostic mode. Check if the SCAN state changes or not when the incoming light is interrupted/passed by using a piece of paper or the like for the transparent type sensor.	Replace the high voltage board.

(10-2) Error occurs during the Down movement of the ID unit

Check item	Check operation	Actions for NG results
(10-2-1) Check the mechanical load during the Down movement		
Mechanical load during installation and removal of the ID unit	Check if abnormal heavy load is applied when removing the ID unit.	Replace the ID unit, or replace the right/left side plate.
Greasing to the right and left Up/Down link levers	Check if the slant surface of the link lever is coated by grease or not.	Apply grease.
Assembled condition of the right and left Up/Down link levers	Check if any part exists or not in the vicinity of link lever, that hampers movement of the link lever.	Assemble them correctly.

7.5.4. (11) Fuser unit error (error 170 to 177)

(11-1) Error occurs immediately after the power is turned on.

Check item	Check operation	Actions for NG results
(11-1-1) Thermistor is defective Note)		
Upper thermistor, lower thermistor, frame thermistor	Check the respective thermistors if they are shorted or opened internally. Check the resistance value at the connector pins in the bottom of the fuser unit. (Refer to section 8.1 Resistance check (fuser unit).)	Replace the fuser unit. If any attempt of using new fuser unit as a trial is going to be made, be sure to use the System Maintenance Menu FUSE KEEP MODE.
Installed condition of fuser unit.	Check if the fuser nit is pressed in until the connector in the bottom of the fuser unit is surely connected.	Re-set the fuser unit.

Note! Service calls 171 error and 171 error can occur when the printer temperature is below 0℃. Turn on the power again after the printer temperature has increased.

(11-2) Error occurs approx. 1 minute after the power is turned on.

Check item	Check operation	Actions for NG results
(11-2-1) Temperature increase of fuser unit		
Thermostat, halogen lamp	Heater of the fuser unit is controlled of its temperature. Check if the fuser unit gets hot or not by touching it with hands. If the fuser unit temperature does not increase and remains cold, check that the resistance between pin-1 and pin-2, and that in between pin-3 and pin-4 of the two connectors is in the range of several ohms to several ten ohms respectively. (Refer to section 8.1 Resistance value (fuser unit).)	Replace the fuser unit. If any attempt of using new fuser unit as a trial is going to be made, be sure to use the System Maintenance Menu FUSE KEEP MODE.

Check item	Check operation	Actions for NG results
(11-2-2) Temperature increase of fuser unit		
Installation position of the upper thermistor	Check if the upper thermistor is installed in the far position from the specified position or not causing detection of the lower temperature than the actual temperature of fuser unit. Remove the heater cover, and check warpage of sensor by visual inspection.	Replace the fuser unit. If any attempt of using new fuser unit as a trial is going to be made, be sure to use the System Maintenance Menu FUSE KEEP MODE.
Installation position of the lower thermistor	The lower thermister must be installed while contacting with the fuser unit. Check if the lower thermister is installed in the far position from the specified position or not causing detection of the lower temperature than the actual temperature of fuser unit.	Replace the fuser unit. If any attempt of using new fuser unit as a trial is going to be made, be sure to use the System Maintenance Menu FUSE KEEP MODE.
(11-2-3) AC power input to the halogen lamp		
AC power voltage from the low voltage power supply	Check if the AC voltage for heater is normally supplied or not. Power supply CN2 connector ㉔, between pin-1 and pin-2, and between pin-3 and pin-4.	Replace the low voltage power supply.
Heater ON signal that is output from CU/PU to the low voltage power supply	Check that the heater ON signal goes active at the warming up timing, or not. "L" active while ON. CU/PU board POWER connector ⑩ pins 14 and 15	Replace the CU/PU board.

7.5.4. (12) Motor fan error (error code 122, 128)

(12-1) The low voltage power supply fan does not rotate immediately after the power is turned on.

Check item	Check operation	Actions for NG results
(12-1-1) Cable connection condition and wiring condition		
Cable connection condition and wiring condition of the low voltage power supply fan and those of the fuser fan	Check if the connectors are connected normally or not. Check if extra length of the cables does not touch the fan blade or not.	Correct the connection condition of the connectors. Correct the cable wiring route. Replace the fan.

(12-2) All fans of the printer do not rotate.

Check item	Check operation	Actions for NG results
(12-2-1) 24V power supply		
CU/PU board fuses, F4 and F5	Check if the fuses F4 and F5 are not open-circuit or not.	24V power supplied to the CU/PU board
24V power supplied to the CU/PU board	Check the power supply voltages at the POWER connector ⑩ of the CU/PU board. Pins 7, 8 and 9: 24V Pins 4, 5 and 6: 0VL Pins 10, 11 and 12: 0VP	Replace the low voltage power supply.

7.5.4. (13) Print speed is slow. (Performance is low.)

(13-1) Print speed decreases.

Check item	Check operation	Actions for NG results
(13-1-1) Media Weight setting		
Media Weight that is specified for the print	Check if the wrong Media Weight has been specified or not.	Correct the Media Weight.

7.5.4. (14) Option unit cannot be recognized.

(14-1) Option try unit cannot be recognized.

Check item	Check operation	Actions for NG results
(14-1-1) Option try board		
Option tray unit	Check if the option tray unit in use is of MC561dn, MC361dn or MC351dn specification.	Replace it with an appropriate option tray unit.
(14-1-2) Check the system connection		
Connection between the CU/PU board and the option tray board (GOG PCB)	Check that the cord between the 2nd connector ⑬ of the CU/PU board and the option tray board is properly connected.	Correct the connections.
Square connector connecting the option tray unit with the main unit	Check if any foreign material exists in the connecting portion of the square connector.	Remove the foreign material.
Square connector connecting the option tray unit with the main unit	Is the terminals of the square connector damaged?	Replace the connector.

Check item	Check operation	Actions for NG results
(14-1-3) Check the control signals.		
Control signal that is output from the CU/PU board to the option tray board (GOG PCB)	Check the control signals that are output from the 2nd connector ⑬ of the CU/PU board. Pin 6: TXD (PU -> 2nd) Pin 5: RXD (2nd -> PU)	Replace the CU/PU board.

7.5.4. (15) LED head cannot be recognized. (error code 131, 132, 133, 134)

(15-1) Service call 131 to 134 (LED HEAD Missing)

Check item	Check operation	Actions for NG results
(15-1-1) Check the system connection		
Connecting condition of the CU/PU board connector and the head connector	Check the connecting condition of the FFC by the visual inspection.	Correct the connection to the normal connecting condition.
Head FFC	Remove the head FFC from the printer. Check if any open-circuit or peeling-off of sheath has occurred or not throughout the cable.	Replace the head FFC or CU/PU board.
Conduction of the fuse on the CU/PU board	Check that measurements taken at both ends of each capacitor CP6 show 5V. (See section 7.6.) Or, instead of the above, check if each fuse F501 is open or not.	Replace the CU/PU board.

7.5.4. (16) Toner cartridge cannot be recognized. (error code 540, 541, 542, 543)

(16-1) Error caused by the consumable items.

Check item	Check operation	Actions for NG results
(16-1-1) Consumable items installation condition		
ID unit and toner cartridge	Check that the ID unit is installed in the normal position. Check that the lock lever of the toner cartridge is locked.	Correct the installation to the normal installation condition.

(16-2) Error caused by the toner sensor

Check item	Check operation	Actions for NG results
(16-2-1) Toner sensor condition		
Toner sensor	Is the receptor of the toner sensor stained?	Wipe off the stain from the toner sensor.
Toner sensor	Confirm that the toner sensor works normally by using the SWITCH SCAN function of the self-diagnostic mode. Place a white paper in front of the toner sensor, and check if the SCAN state changes or not.	Replace the toner sensor board, CU/PU board, or FFC that is located between the toner sensor board and the CU/PU board.

Note! Toner sensor operation check method using the SWITCH SCAN function of the self-diagnostic mode.

(1) How to check operation of the toner sensor at the printer side.

1. Status change of the toner sensor can be checked from the Operator Panel using the self-diagnostic mode. First, switch the display to the Operator Panel display. For the method of switching the display to the Operator Panel display, refer to section 5.4.3 Switch Scan Test
2. Remove the ID unit and the toner cartridge (TC) from a printer. There is a window inside a printer opposing the ID side when viewed from the front of a printer. The toner sensor is located inside the window.
3. Place a white paper 3 mm away from the sensor window. The white paper should be placed in the manner of opposing the toner sensor.
4. When light is reflected by a white paper so that incident light falls on the toner sensor, the Operator Panel display shows "L". When the paper is moved so that any light is not reflected by the paper so that the incident light does not reach the toner sensor, "H" is displayed on the Operator Panel.
5. If the Operator Panel display toggles between "H" <-> "L" as a paper is flipped in front of the toner sensor, it indicates that the toner sensor and the related system of the printer are working normally.

Action to be taken at NG

- Clean surface of the toner sensor to remove the stains due to residual toner and paper dust.
- Check the connection state between the CU/PU board and the toner sensor board (ZHJ) that are connected with the FFC cable.
- Check it once again, and if no change has found in the state, replace the CU/PU board or the toner sensor board (ZHJ).

(2) How to check operation of the toner sensor at the toner cartridge (TC) side

1. To the position where the toner sensor is confirmed to be operating normally in the printer itself by the above paragraph (1), install the TC and the ID unit to check operations by observing display on the Operator Panel.
2. If the ID unit works normally, the display on the Operator Panel will toggle between "H" <-> "L" in synchronism with movement of the silver reflector plate that is located on the side of the ID.

Action to be taken at NG

- Check operation condition of the respective ID motors by using the Motor & Clutch Test of the self-diagnostic mode.
- Clean surface of the silver reflector plate on the side of ID to remove stains. (Stain due to toner or paper dust)
- Replace the TC of different color and the ID unit as a pair.

  If a satisfactory operation is attained by using the a pair of TC of different color and the ID unit, replace the TC or replace the ID unit.

(16-3) Error caused by the defective mechanism

Check item	Check operation	Actions for NG results
(16-3-1) Mechanical load applied to the ID unit		
ID unit	Check if a heavy mechanical load is being applied to the ID unit due to breakage of the waster toner belt, or not. Check if a heavy mechanical load is being applied to the ID unit by the waster toner box, or not.	Replace the K toner.
(16-3-2) Motor operating condition		
ID motor	Confirm that the respective ID motors work normally or not by using the Motor & Clutch Test of the self-diagnostic mode. Check if any extra load exists or not.	Replace the CU/PU board or the ID motor.

7.5.4. (17) Fuse cut error (error codes 153 to 155)

(17-1) Fuse cut error

Check item	Check operation	Actions for NG results
(17-1-1) Check the system connection		
FFC connecting the CU/PU board and the toner sensor board (ZHJ PCB)	Check if the SSNS connector ⑰ of the CU/PU board or the SSNS connector ⑲ of the toner sensor board (ZHJ PCB) is connected halfway or inserted in a slanted angle.	Connect the FFC normally. Alternately, replace the FFC.
(17-1-2) Fuse cut circuit		
CU/PU board	Upon completion of the system connection check, turn off the power once and back on. The, check if the error occurs or not.	Replace the CU/PU board.

7.5.4. (18) Humidity sensor error (error code 123)

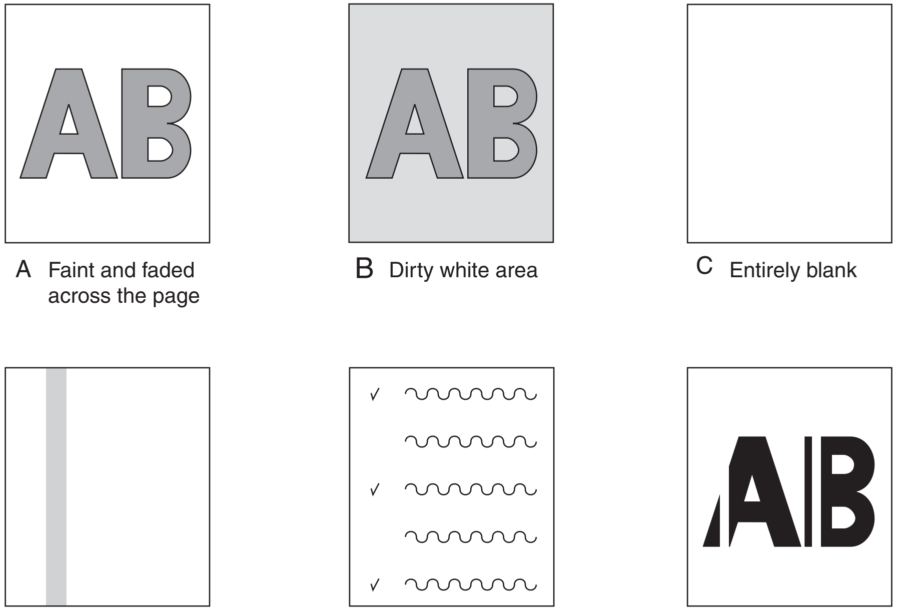
(18-1) Humidity sensor error

Check item	Check operation	Actions for NG results
(18-1-1) Check the system connection		
Connection to the CU/PU board and to the toner sensor board	Check if the 16-conductor FFC is connected to the SSNS connector ⑰ of the CU/PU board normally. Check if the 16-conductor FFC is connected to the SSNS connector ⑲ of the toner sensor board normally.	Re-connect the cable normally.
FFC connecting the CU/PU board and the toner sensor board	Check for open-circuit with ZHJ. Check that peeling off of sheath does not occur in any cables by visual inspection.	Replace the FFC with the normal FFC.
(18-1-2) Environment condition		
Sharp change of environment condition	Is the environment condition changed sharply from a low temperature environment to a high environment condition within a short time? (Example is such a case that a printer is moved from storage condition of a cold area in winter to an office environment.)	Leave a printer for around one hour in the new environment to get used to the new environment. After that, turn on the power again. Before turn on the power, touch the metal panel of the controller panel and the metal plate inside a printer to feel temperature increase inside a printer with human hands. After confirmation that the printer temperature has increased close to the room temperature, turn on the power again.

7.5.5 Image Problem Troubleshooting

- (1) Color is faint and fades across pages (see Fig. 7-2 A). 268
  - (1-1) Color is faint and fades. 268
- (2) The white area of printed pages is dirty (see Fig. 7-2 B). 269
  - (2-1) The white area of printed pages is dirty (partially). 269
  - (2-2) The white area of printed pages is dirty (all over). 270
- (3) Printed pages are blank (see Fig. 7-2 C). 270
  - (3-1) A printed pages are entirely blank. 270
- (4) Vertical lines are produced in printed pages. 271
  - (4-1) Fine lines (colored) (see Fig. 7-2 D) 271
  - (4-2) Fine lines (white) (see Fig. 7-2 F) 271
- (5) Print quality problems appear periodically (see Fig. 7-2 E). 272
  - (5-1) Print quality problems appear vertically and periodically. 272
- (6) Color misregistration is significant. 272
  - (6-1) The message “Adjusting color” displayed at power on stays for a short time. 272
  - (6-2) Although the REG ADJUST TEST result of the engine maintenance function is OK, color misregistration occurs. 272
- (7) Black filled-in printing. 273
  - (7-1) Printed pages are filled-in black entirely. 273

Note! To replace the CU/PU board with a new one, load EEPROM chip data on the old board and copy it to the new board.



A Faint and faded across the page

B Dirty white area

C Entirely blank

D Vertical black stripe/line

E Periodic problems

F Vertical white band/line

Fig.7-2

7.5.5 (1) Color is faint and fades across pages (see Fig. 7-2 A).

(1-1) Color is faint and fades.

Check item	Check operation	Actions for NG results
(1-1-1) Toner		
Remaining toner amount	Check the operator panel if it displays "Prepare to replace the toner cartridge" or "Replace the toner cartridge."	Replace any applicable toner cartridge with a new toner cartridge.
Tape at the toner cartridge opening	Check to make sure that the tape is removed from each toner cartridge opening.	Move the toner cartridge lever to the closed position and remove any applicable tape from the opening.
(1-1-2) LED head		
LED head lens	Check the LED head lens if its surface is dirty with toner or paper dust.	Clean them with soft tissue paper.
LED head attaching state	Check the LED head if it is properly set into the LED head holder. Check the tension spring on the both sides if they are set properly.	Correct them so that they are properly set.
(1-1-3) Print media		
Media type	Check if the media used for printing is especially thick.	Use standard paper.
(1-1-4) High-voltage terminal		
ID unit terminal	Visually check each ID unit high-voltage terminal if it contacts the contact assembly properly. (See Fig. 7-3.)	Replace any applicable ID unit or correct any applicable high-voltage terminal. When using a new ID unit as a try, select FUSE KEEP MODE of the system maintenance menu.
(1-1-5) ID unit installation state		
ID unit down position (transfer error)	Take out and insert each ID unit by hand to check that there is no abnormal load and it goes down to normal down position. If the top end of a sheet of paper inserted between the drum and the belt is bent easily, it means improper installation state.	Check the U-groove of the side plate for any abnormality. If it is not repairable, replace the unit.

7.5.5 (2) The white area of printed pages is dirty (see Fig. 7-2 B).

(2-1) The white area of printed pages is dirty (partially).

Check item	Check operation	Actions for NG results
(2-1-1) ID unit		
Exposure of a drum to light	Was any ID unit left in an environment where its drum surface was exposed to light for a long period of time?	Replace any applicable ID unit. When using a new ID unit as a try, select FUSE KEEP MODE of the system maintenance menu.
Toner leakage	Is toner leaking from any ID unit or toner cartridge?	Replace any applicable ID unit or toner cartridge. When using a new ID unit as a try, select FUSE KEEP MODE of the system maintenance menu.
(2-1-2) Fuser unit		
Offset toner in the fuser units	Visually check each fuser unit if offset toner in the previous printing adheres to them.	Repeat blind printing using unnecessary media until offset toner is created on print media, or replace any applicable fuser unit. When using a new ID unit as a try, select FUSE KEEP MODE of the system maintenance menu.

(2-2) The white area of printed pages is dirty (all over).

Check item	Check operation	Actions for NG results
(2-2-1) Print media		
Media type	Is the media used for printing is especially thick?	Use standard paper.
(2-2-2) High-voltage terminal		
ID unit terminal	Visually check each ID unit high-voltage terminal if it contacts the contact assembly properly. (See Fig. 7-3.)	Replace any applicable ID unit or correct any applicable high-voltage terminal. When using a new ID unit as a try, select FUSE KEEP MODE of the system maintenance menu.

7.5.5 (3) Printed pages are blank (see Fig. 7-2 C).

(3-1) A printed pages are entirely blank.

Check item	Check operation	Actions for NG results
(3-1-1) Toner state		
Remaining toner amount	Check if the amount of toner remaining in toner cartridges is sufficient.	Replace any toner cartridge with little toner.
(3-1-2) Exposure state		
LED head	Check each LED head and relevant drum if they face each other at a correct position when the cover is closed. Check each LED head's light-emitting face for anything that blocks emission of light.	Correct the LED head position.
LED head connection state	Check LED heads if they are connected properly.	Replace any applicable LED head.
Drum shaft	Are drum shafts installed in a manner that they contact the side plates on both sides correctly?	Replace any applicable ID unit. When using a new ID unit as a try, select FUSE KEEP MODE of the system maintenance menu.
CU/PU board fuse F501	Measure resistance values of F501. 1 Ω or less : Normal 1 Ω or more: NG	Replace the CU/PU board.

Check item	Check operation	Actions for NG results
(3-1-3) High-voltage terminal		
ID unit terminal	Visually check each ID unit high-voltage terminal if it contacts the contact assembly properly. (See Fig. 7-3.)	Replace any applicable ID unit or high-voltage board, or correct any applicable high-voltage terminal. When using a new ID unit as a try, select FUSE KEEP MODE of the system maintenance menu.

7.5.5 (4) Vertical lines are produced in printed pages.

(4-1) Fine lines (colored) (see Fig. 7-2 D)

Check item	Check operation	Actions for NG results
(4-1-1) ID unit state		
ID unit filming	Were pages printed with toner empty?	Replace any applicable toner cartridge with a new one. If it doesn't solve the problem, replace the relevant ID unit. When using a new ID unit as a try, select FUSE KEEP MODE of the system maintenance menu.

(4-2) Fine lines (white) (see Fig. 7-2 F)

Check item	Check operation	Actions for NG results
(4-2-1) LED head state		
LED head	Do foreign matters adhere to the Selfoc lens' light-emitting face of any LED head?	Remove the foreign matters.
(4-2-2) Paper feed state		
Paper feed path	Check if the paper feed path reaching the fusing area have burrs that scrape unfixed toner.	Remove the burrs.

7.5.5 (5) Print quality problems appear periodically (see Fig. 7-2 E).

(5-1) Print quality problems appear vertically and periodically.

Check item	Check operation	Actions for NG results
(5-1-1) Cycle		
Image drum	Check if the cycle is 94.3 mm.	Replace any applicable ID unit.
Developing roller	Check if the cycle is 30.2 mm.	Replace any applicable ID unit.
Toner supply roller	Check if the cycle is 43.1 mm.	Replace any applicable ID unit.
Charging roller	Check if the cycle is 29.9 mm.	Replace any applicable ID unit..
Roller above the fuser	Check if the cycle is 85.4 mm.	Replace any applicable fuser unit.
Fuser belt	Check if the cycle is 94.2 mm.	Replace any applicable fuser unit.
Transfer roller	Check if the cycle is 37.7 mm.	Replace the belt unit.
		When using any new consumable as a try, select FUSE KEEP MODE of the system maintenance menu.

7.5.5 (6) Color misregistration is significant.

(6-1) The message “Adjusting color” displayed at power on stays for a short time.

Check item	Check operation	Actions for NG results
(6-1-1) Color registration adjustment result		
Time of color registration adjustment (if it is normal, correction takes about 40 seconds)	Execute REG ADJUST TEST in the self-diagnostic mode and check the result. Even if an error has occurred, it is not displayed when ON LINE is displayed.	Replace the sensor if the result shows NG. Clean the sensor. Replace the shutter. Replace the CU/PU board.
(6-1-2) Toner		
Remaining toner amount	Check the operator panel if it displays “Prepare to replace the toner cartridge” or “Replace the toner cartridge.”	Replace an applicable toner cartridge with a new one.
(6-1-3) Color registration sensor		
Dirty sensor	Check the sensor if it is dirty with toner or paper dust.	Wipe them off.
(6-1-4) Color registration sensor shutter		
Malfunction of the shutter	Check shutter operation in the self-diagnostic mode.	Replace the shutter or repair the mechanism.

(6-2) Although the REG ADJUST TEST result of the engine maintenance function is OK, color misregistration occurs.

Check item	Check operation	Actions for NG results
(6-2-1) Feeding system		
Paper feed state in the paper feed path	Check the paper feed path if there is something that blocks the paper in the paper feed path.	Remove the blocking object.

7.5.5 (7) Black filled-in printing

(7-1) Printed pages are filled-in black entirely.

Check item	Check operation	Actions for NG results
(7-1-1) High-voltage terminal contacting state		
CH terminal	From above the printer, visually check if the terminal jutting out the printer contacts the high-voltage terminal, which is located on the left side of the ID unit, normally.	Replace the terminal on the printer side.
CH terminal	Check if the high-voltage terminal on the high-voltage board is in a normal contact state. Open the left-side cover, detach the high-voltage board, and check if the terminal is installed improperly.	Remove and install the terminal properly.
ID unit terminal	Visually check each ID unit high-voltage terminal if it contacts the contact assembly properly. (See Fig. 7-3.)	Replace any applicable ID unit or high-voltage board, or correct any applicable high-voltage terminal. When using a new ID unit as a try, select FUSE KEEP MODE of the system maintenance menu.
(7-1-2) High-voltage output state		
CH output	If a high-voltage probe is available as a maintenance tool, open the left-side cover and check CH output on the soldering side of the high-voltage board using the high-voltage probe during printing. (High-voltage probes are not a general maintenance tool.)	Replace the high-voltage board.

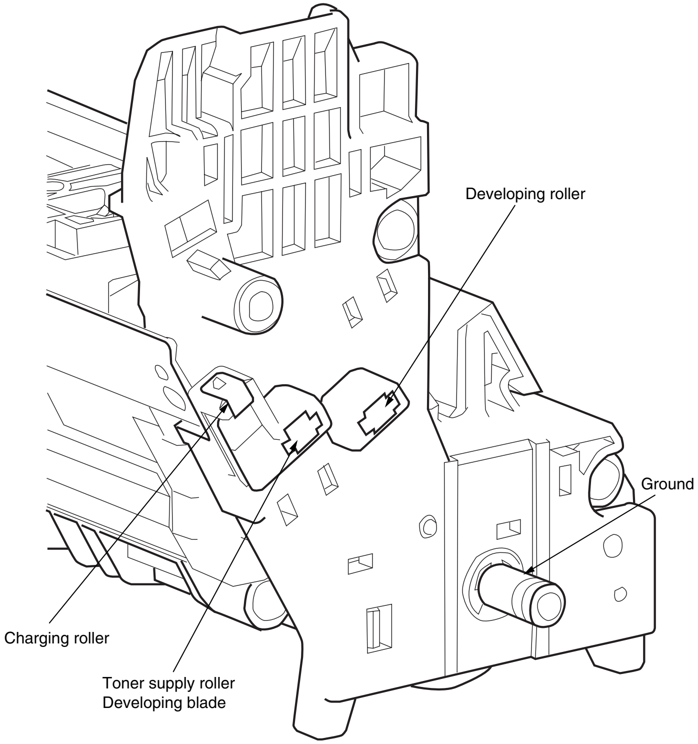


Fig. 7-3

7.5.6 Response after Flash compulsive initialization

Explain the response after compulsive initialization is performed with trouble occurred in Flash.

(1) Flash compulsive initialization

If Flash compulsive initialization is performed, the following data would be deleted and the network and fax would not be available.

- NIC-Firmware
- WebPage data
- Log data
- Address data
- Message data
- Language file

It is necessary to write above Firmware and data into Flash by the maintenance utility.

Note! Do not carry it out usually.

7.5.7 Copy Image Abnormality Error Troubleshooting

- When the following symptom occurs in the copy image, implement the inspection and adjustment of the copy image.
  ① Line appears on the copy image.
  ② Color of the copy image becomes slightly thin.
  ③ Color of the copy image becomes dark.
  ④ Color of the copy image becomes abnormal.
  ⑤ Print position of the copy image is shifted.

- Required equipment and tools
  ① Slide caliper gauge or scale (JIS 1st class product)
  ② Inspection chart:Part Number : 44623501
  ③ PC (PC scan should be possible.)
  ④ Scanner inspection and adjustment tool
  ⑤ USB cables : 1 cable (Compliant with Rev. 2.0)

1. Identifying the problem.

   Perform section 7.5.3. "Abnormal Image Troubleshooting" to identify whether the problem is located in the printer or in the scanner.

   If the cause of the problem is in the scanner, go to the next item.

2. Cleaning

   Perform sections 6.6 "Cleaning Rollers in the ADF", 6.7 "Cleaning the Document Glass" respectively.

   If the cleaning cannot solve the problem, go to the next item.

3. Copy image quality inspection

   Make copies and check whether the problem has been solved.

   If it has been solved, finish the inspection.

   If it remains unsolved, go to the next secton.

4. Scanner inspection and adjustment

Perform inspection of the scanner based on the NG judgment result using the "Field Checker" tool.

Copy image quality specification NG item	Scanner maintenance tool implementation contents	
	FB	ADF/RADF
4.9.1 : Scaling	STEP1 No.3, 4	STEP2, 3 No.3, 4
4.9.2 : Skew	STEP1 No.5, 6	STEP2, 3 No.5, 6
4.9.3 : Scan position	STEP1 No.1, 2	STEP2, 3 No.1, 2
4.9.4 : CTF (MTF)	STEP4 No.3 STEP6 No.3	STEP5 No.4 STEP7 No.4
4.9.5 : Grey balance	STEP4 No.1 STEP6 No.1	STEP5 No.2 STEP7 No.2
4.9.6 : Color balance	STEP5 No.3	STEP7 No.3
4.9.7 : Std. Dev.	STEP4 No.2 STEP6 No.2	STEP5 No.2 STEP7 No.2
4.9.8 : Page Uniformity	STEP4 No.4 STEP6 No.4	STEP5 No.5 STEP7 No.5
4.9.10 : Photo Response Non Uniformity	STEP4 No.5 STEP6 No.5	STEP5 No.6 STEP7 No.6
4.9.11 : Jitter	STEP1 No.7	STEP2 No.7

Perform the inspection in each step.

(For the method of using the tool, refer to the "Image Inspection System Operation Manual" (This is the operation manual attached to the Field Checker.))

If NG occurs on the tool during the inspection of the scanner, perform adjustment in accordance with the following table.

Scanner Inspection Step	Scanner Adjustment
STEP 1, 2, 3	Perform the Automatic Alignment in accordance with the "Image Inspection System Operation Manual". After adjustment is completed, perform the inspection steps once again.
STEP 4, 5, 6, 7	Perform the Automatic output adjustment in accordance with the "Image Inspection System Operation Manual". After adjustment is completed, perform the inspection steps once again.

After the Scanner Inspection and Adjustment, perform item 4 "Copy Image Inspection". When result of the inspection is OK, this is the end of the inspection.

If the result is NG, it is judged that the scanner is defective. Replace the scanner unit.

7.5.8 Network Troubleshooting

(1) Cannot print from Utility.

Confirmation Items	Confirmation Tasks	Action at NG
(1) Checo the LINK lamp.		
Check whether LINK lamp (green) is lighted.	Check whether HUB and printer are connected normally. (Check the network cable connection.)	Reconnect the network cable normally.
	Check whether straight cable is used.	Replace with straight cable.
	Try to insert the network cable into different HUB port.	Try to replace the HUB.
(2) Check the content of network information		
Check IP address, Subnet mask, Gateway address.	Print out the network information. Check IP address, Subnet mask, Gateway address.	Set the IP address, Subnet mask, Gateway address correctly.
(3) Check whether the communication on the network is normal.		
Send the Ping command from PC to printer to check	Send the Ping command from PC to printer, and check whether the response is correct.	Set the IP address, Subnet mask, Gateway address correctly.
(4) Check the utility		
Check the settings of OKI LPR utility.	Check the setting items of OKI LPR utility.	Set the setting items of OKI LPR utility correctly.
(5) Check the OS standard port.		
Check windows (NT, 2000, XP) standard LPR port.	Set windows (NT, 2000, XP) standard LPR port, and check whether print is normal.	Set windows (NT, 2000, XP) standard LPR port correctly.

7.6 Fuse Checking

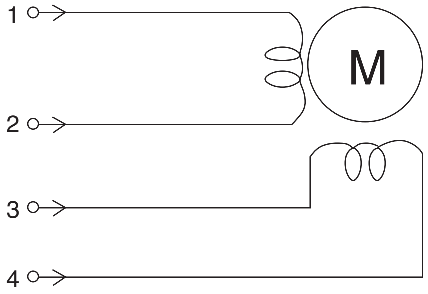
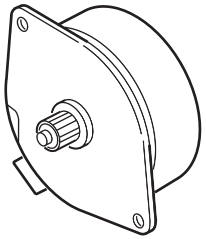
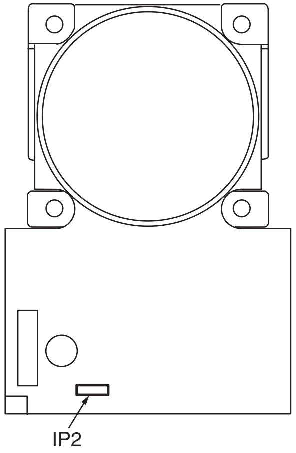
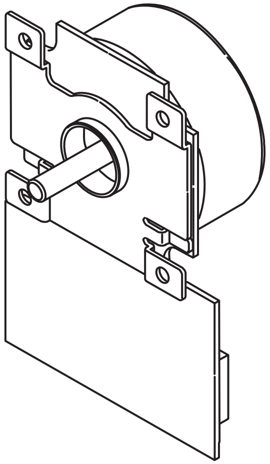
Table 7-6 MC561/MC361/MC351 Fuse Errors

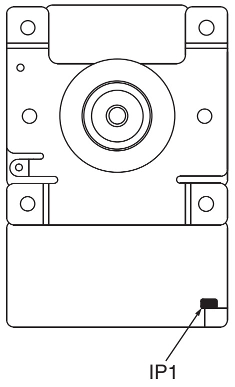
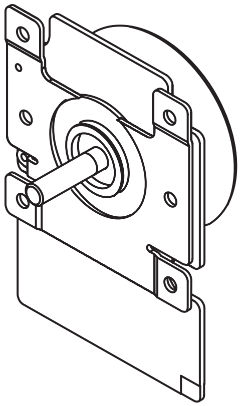
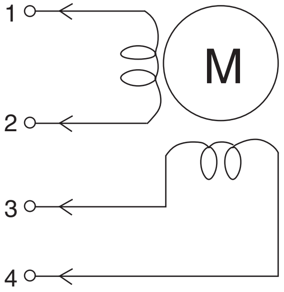
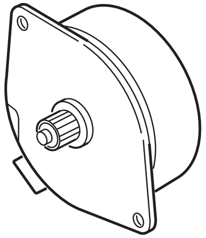
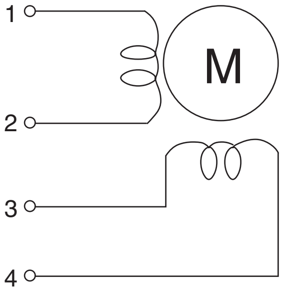
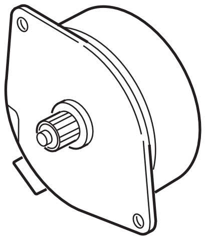
Fuse Name		Error Description	Insert Point	Resistance
CU/PU board (CLP)	F2	Service Call 128 Error08	Front fan, hopping motor, registaration clutch, hopping clutch, MPT clutch, Duplex clutch	1Ω or less
	F4	Service Call 122	Rear fan, hopping motor, registaration clutch, hopping clutch, MPT clutch, Duplex clutch	
	F6	Cover open	High-voltage board, ID fan, belt motor	
	F3	• Service Call 121 • The operator panel backlight blackout	PU 5V	
	F5	No display on the operator panel	CU/PU 3.3V	
	F501	• Service Call 131 to 134 • Blank page printing	LED head 5V	
High-voltage borad (ORZ board)	F501	Service Call 121	High-voltage board 24V	
SU board (MHC)	F1	No display on the operator panel	SU, FAX, OPE	
	F2	No display on the operator panel	SU, OPE	
	F3	Lamp Error	CIS	
	F501	Carriage Error	FB/ADF Motor	
	F502	Lamp Error	Clutch, Solenoid, CIS	
	F503	No display on the operator panel	SU, FAX, OPE	

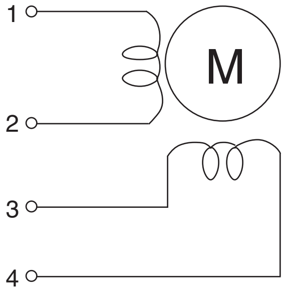
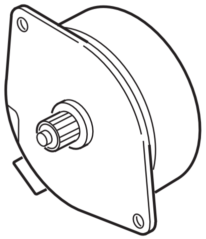
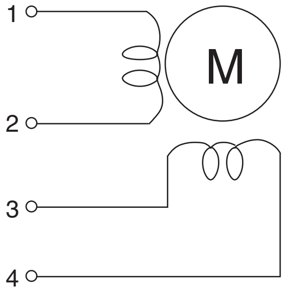
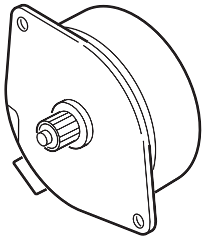
8. CONNECTION DIAGRAMS

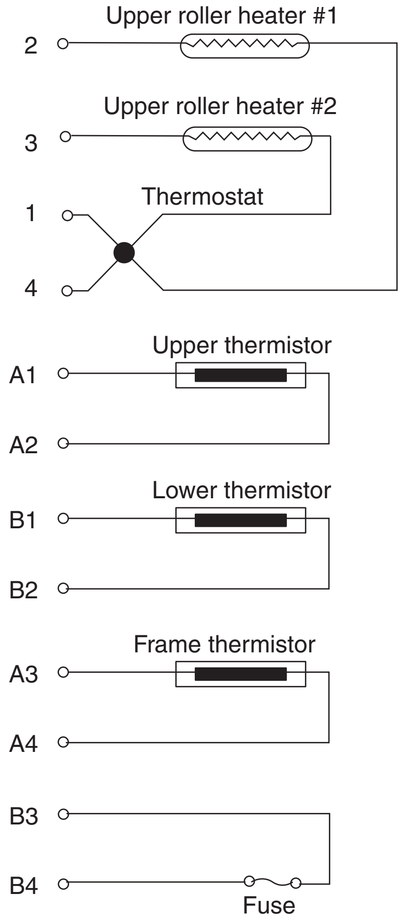
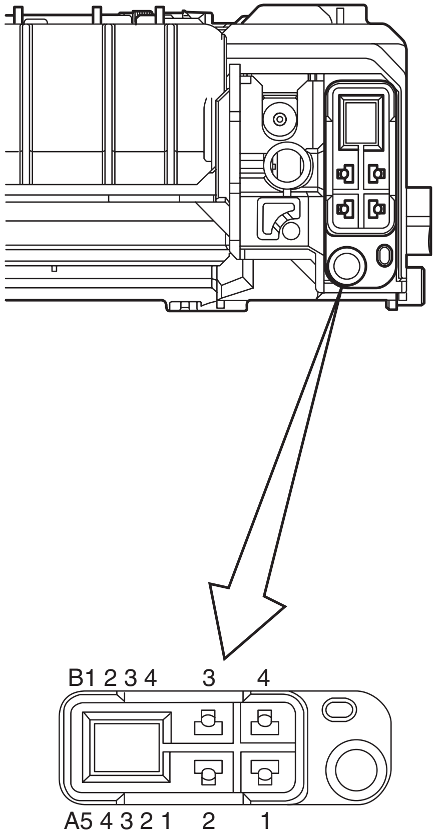
8.1 Check of resistance values 279
8.2 Layout of parts 283

8.1 Check of resistance values

Unit	Circuit diagram and composition	Part drawing	Resistance value
Transport belt motor			Between pins 1 and 2: 3.4 Ω Between pins 3 and 4: 3.4 Ω
ID motor			Both ends of IP2: 1 Ω or less

Unit	Circuit diagram and composition	Part drawing	Resistance value
Fuser motor			Both ends of IP1: 1 Ω or less
Feed motor			Between pins 1 and 2: 3.4 Ω Between pins 3 and 4: 3.4 Ω
2nd feed motor			Between pins 1 and 2: 3.4 Ω Between pins 3 and 4: 3.4 Ω

Unit	Circuit diagram and composition	Part drawing	Resistance value
ADF motor			Between pins 1 and 2: 3.4 Ω Between pins 3 and 4: 3.4 Ω
FB motor			Between pins 1 and 2: 14 Ω Between pins 3 and 4: 14 Ω

Unit	Circuit diagram and composition	Part drawing	Resistance value
Fuser unit			Between pins 1 and 2: Several ohms to several tens of ohms Between pins 3 and 4: Several ohms to several tens of ohms Between pins A1 and A2: Approx. 590 kΩ to 5338 kΩ (0 to 93°C) Between pins B1 and B2: Approx. 104.5 kΩ to 806.5 kΩ (0 to 43°C) Between pins A3 and A4: Approx. 104.5 kΩ to 806.5 kΩ (0 to 43°C) Between pins B3 and B4: Open A5 blank NC

Upper roller heater #1
2
Upper roller heater #2
3
Thermostat
1
4
Upper thermistor
A1
A2
Lower thermistor
B1
B2
Frame thermistor
A3
A4
B3
B4
Fuse

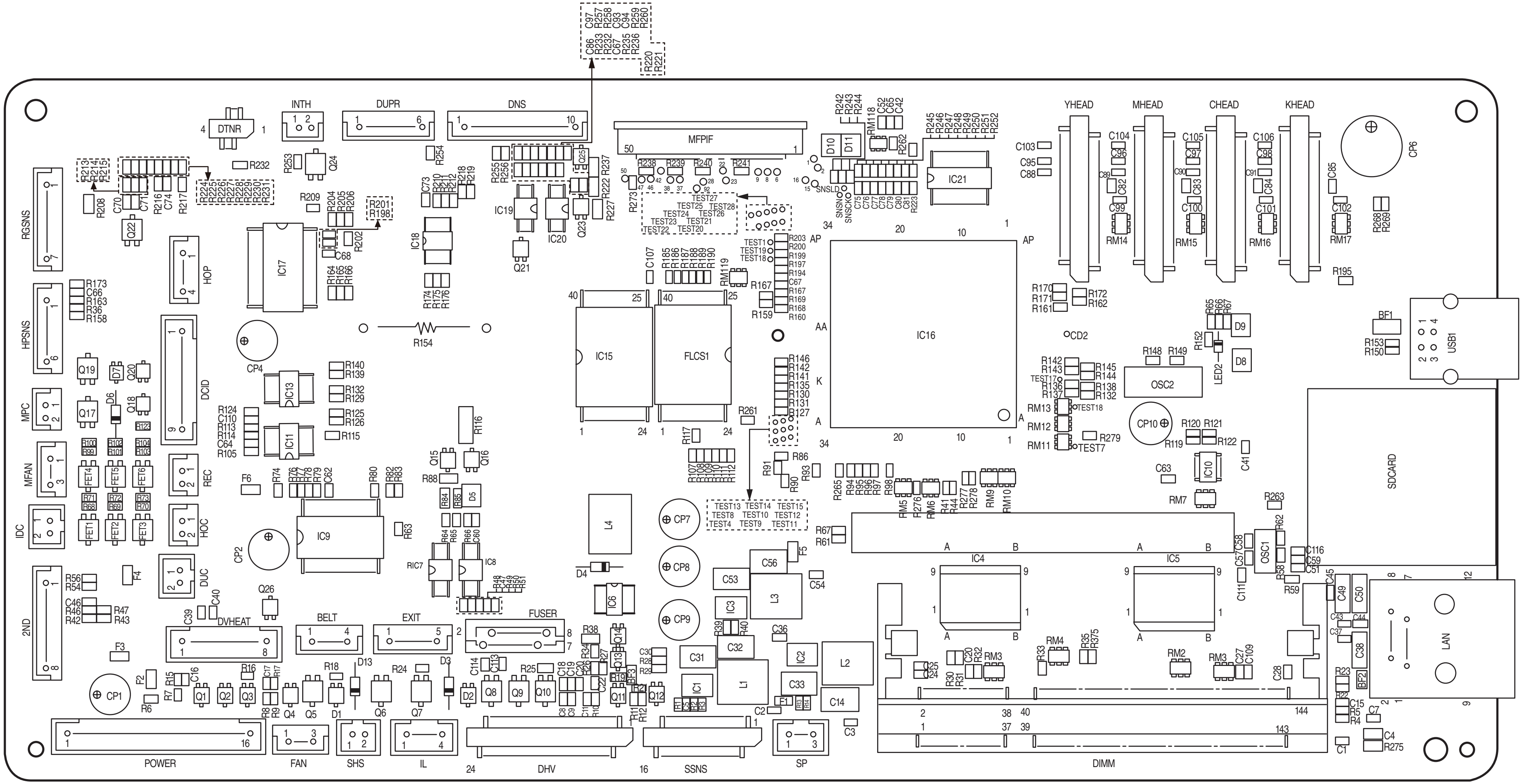
B1 2 3 4
3
4
A5 4 3 2 1
2
1

8.2 Layout of parts

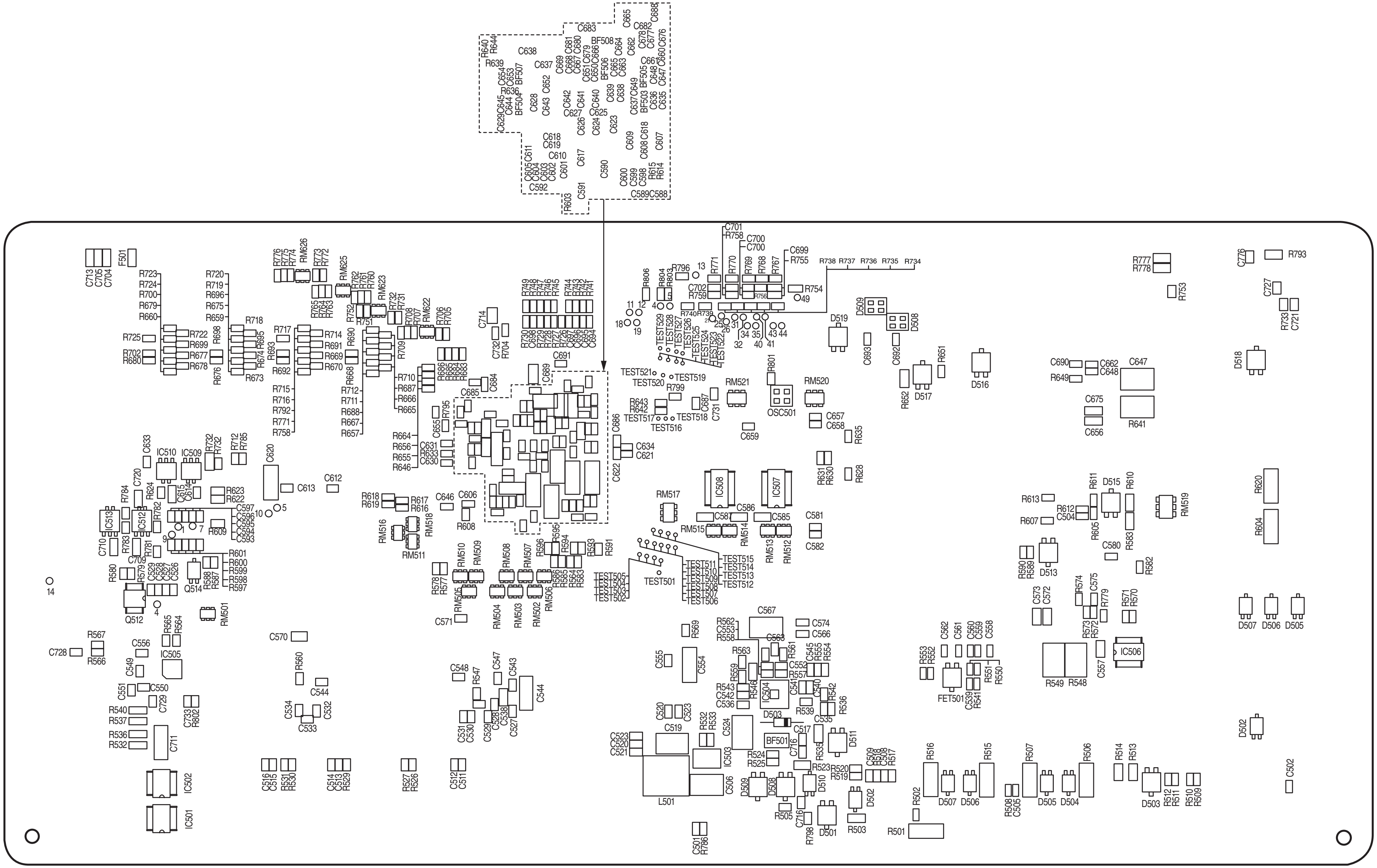
(1) CU/PU board(CLP)

MC561

Component side

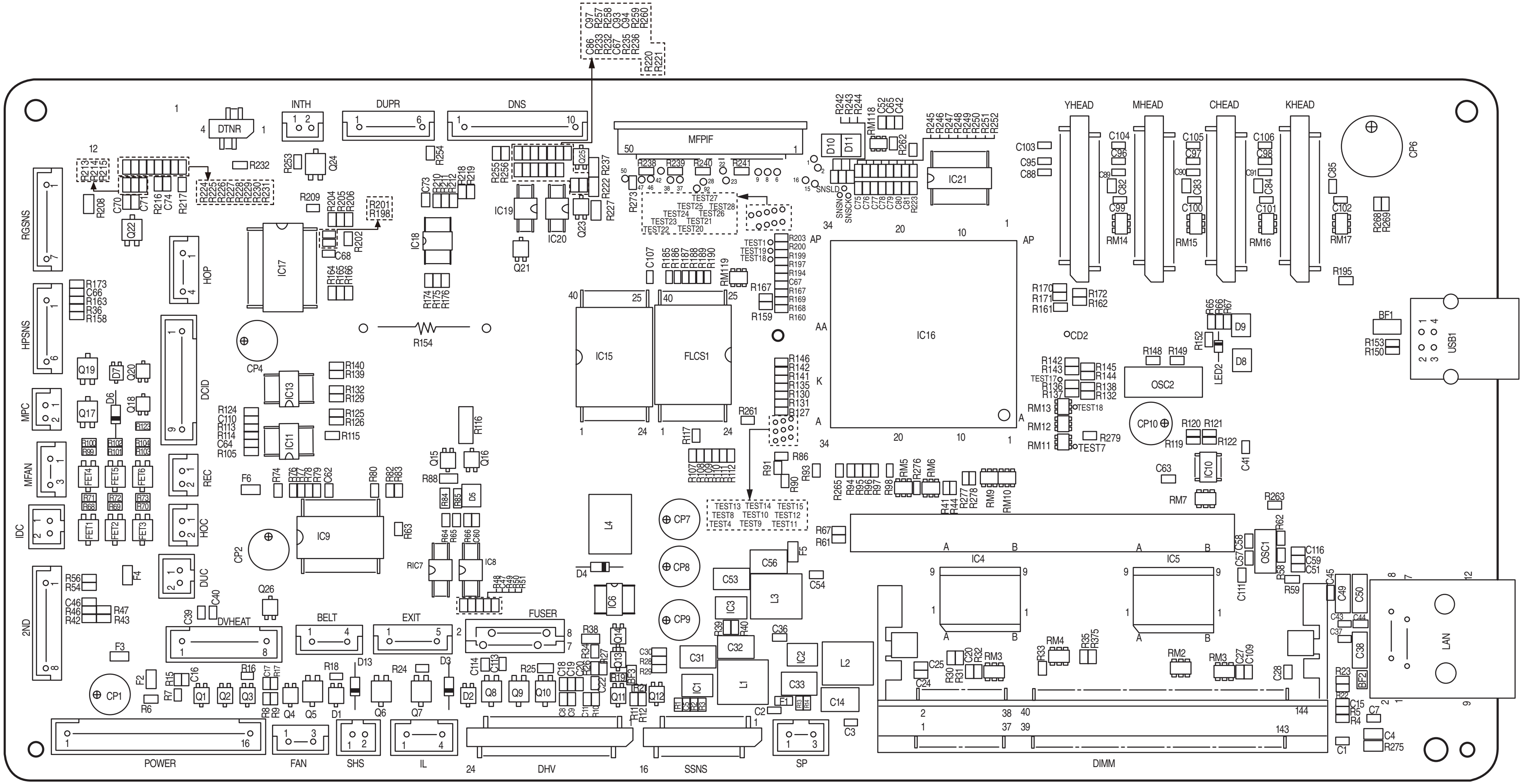

C86 C97 R233 R257 R232 R258 C67 C33 R235 C94 R236 R259 R260
R220 R221
INTH
DUPR
DNS
DTNR
MFPIF
YHEAD
MHEAD
CHEAD
KHEAD
CP6
RGSNS
HPSNS
MPC
MFAN
IDC
2ND
HOP
DCID
REC
HOC
DUC
DVHEAT
BELT
EXIT
FUSER
POWER
FAN
SHS
IL
DHV
SSNS
SP
DIMM
LAN
SDCARD
USB1
IC1
IC2
IC3
IC4
IC5
IC6
IC8
IC9
IC10
IC11
IC13
IC15
IC16
IC17
IC18
IC19
IC20
IC21
RIC7
FLCS1
OSC1
OSC2
CP1
CP2
CP4
CP7
CP8
CP9
CP10
L1
L2
L3
L4
C31
C32
C33
C53
C56
C14
BF1
BF2
D1
D2
D3
D4
D5
D6
D7
D8
D9
D10
D11
D13
Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q8
Q9
Q10
Q11
Q12
Q13
Q14
Q15
Q16
Q17
Q18
Q19
Q20
Q21
Q22
Q23
Q24
Q25
Q26
FET1
FET2
FET3
FET4
FET5
FET6
LED2
CD2
R154
RM2
RM3
RM4
RM5
RM6
RM7
RM9
RM10
RM11
RM12
RM13
RM14
RM15
RM16
RM17
RM118
RM119
TEST1
TEST7
TEST8
TEST9
TEST10
TEST11
TEST12
TEST13
TEST14
TEST15
TEST17
TEST18
TEST19
TEST20
TEST21
TEST22
TEST23
TEST24
TEST25
TEST26
TEST27
TEST28
SNSLD
SNSCK
SNSN
AP
AA
K
A
B

Soldering side

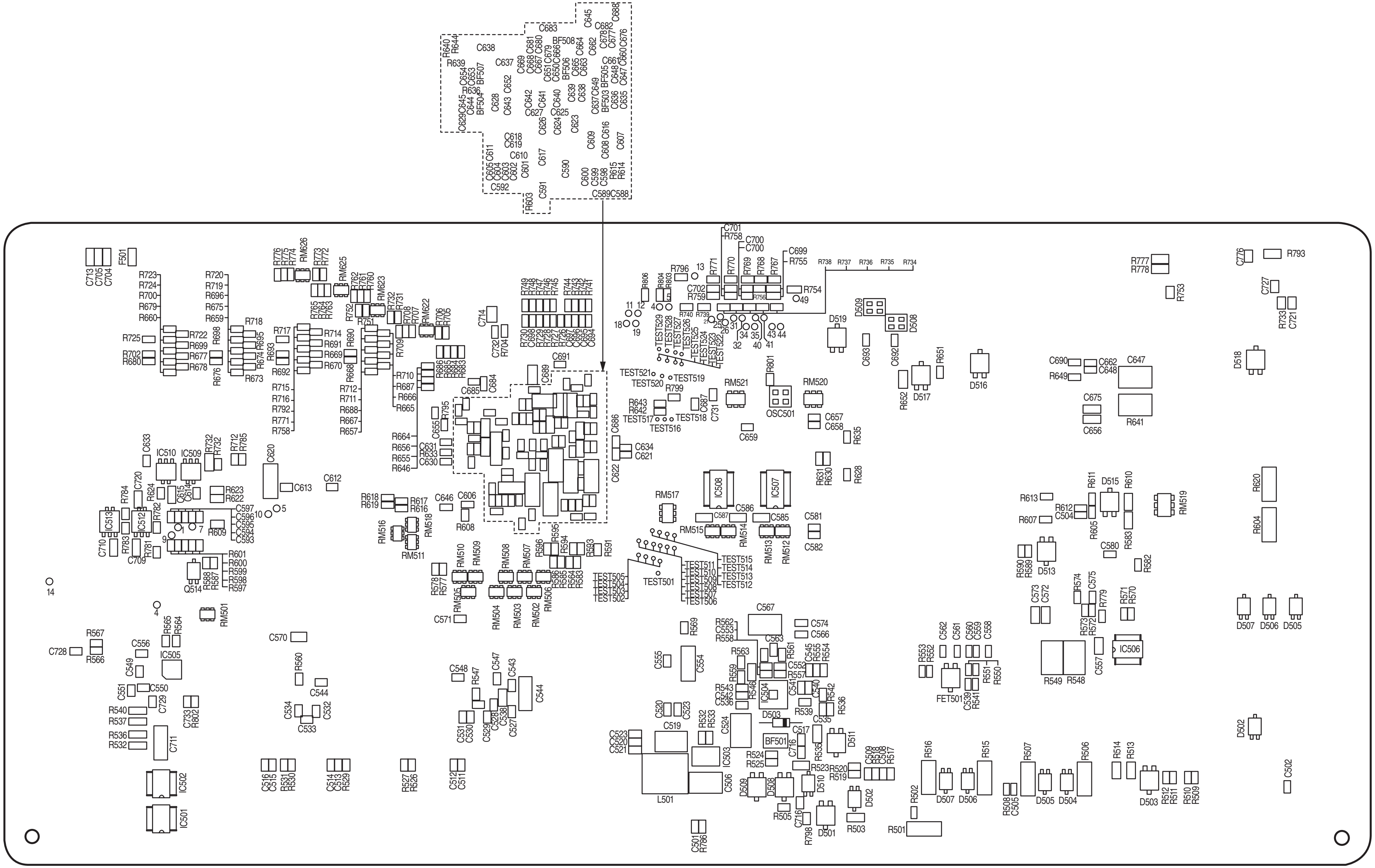

C713
C705
C704
F501
R723
R724
R700
R679
R660
R720
R719
R696
R675
R659
R776
R775
R774
RM626
R773
R772
RM625
R725
R702
R680
R722
R699
R677
R678
R698
R676
R718
R674
R695
R673
R693
R692
R717
R714
R691
R669
R670
R690
R668
R715
R716
R792
R771
R758
R712
R711
R688
R667
R657
R765
R764
R763
R752
R751
R762
R761
R760
RM623
R732
R731
R708
R707
RM622
R706
R705
R709
R710
R687
R666
R665
R686
R685
R684
R683
C685
C684
C714
C732
R704
R749
R748
R747
R746
R745
R744
R743
R742
R741
R730
C698
R729
R728
R727
R726
C697
C696
C695
C694
C691
C689
R664
R656
R655
R646
C655
R795
C631
R633
C630
C686
C634
C621
C622
C620
C612
C613
IC510
IC509
C633
R732
R712
R785
C720
R784
IC513
IC512
R624
R782
C615
C614
R623
R622
C597
C596
C595
C594
C593
R609
C710
R783
R781
R601
R600
R599
R598
R597
C709
R580
R579
C529
C528
C527
C526
R588
R587
Q514
Q512
RM501
14
R567
R566
C728
C556
IC505
R565
R564
C549
C551
C550
C729
R540
R537
R536
R532
C733
R802
C711
IC502
IC501
C570
R560
C544
C534
C532
C533
C516
C515
R531
R530
C514
C513
R529
R527
R526
C512
C511
R618
R619
R617
R616
C646
C606
R608
RM516
RM511
RM518
R578
R577
RM510
RM509
RM508
RM507
RM505
C571
RM504
RM503
RM502
RM506
R596
R595
R594
R586
R585
R564
R583
R593
R592
R591
C548
R547
C547
C543
C544
C531
C530
C529
C528
C538
C527
TEST505
TEST504
TEST503
TEST502
TEST501
TEST511
TEST510
TEST509
TEST508
TEST507
TEST506
TEST515
TEST514
TEST513
TEST512
RM517
IC508
IC507
C587
C586
C585
C581
C582
RM515
RM514
RM513
RM512
C701
R758
C700
C700
C699
R755
R738
R737
R736
R735
R734
R806
R804
R803
R796
R771
R770
R769
R768
R767
C702
R759
R754
R740
R739
TEST529
TEST528
TEST527
TEST526
TEST525
TEST524
TEST523
TEST522
TEST521
TEST520
TEST519
TEST518
TEST517
TEST516
R799
R643
R642
C687
C731
R801
RM521
RM520
OSC501
C657
C658
C659
R635
R631
R630
R628
D509
D508
D519
C693
C692
R651
R652
D517
D516
R777
R778
R753
C776
R793
C727
R733
C721
C690
R649
C662
C648
C647
C675
C656
R641
D518
R613
R612
C504
R607
R611
D515
R610
R605
R583
RM519
R620
R604
C580
R582
R590
R589
D513
C573
C572
R574
C575
R779
R573
R572
R571
R570
D507
D506
D505
C567
C574
C566
R562
C553
R558
R569
C563
R561
C545
R555
R554
C555
C554
R563
C552
R557
R559
R546
R543
C542
C536
IC504
C541
C540
R542
R536
D503
R539
C535
C520
C523
C519
R532
R533
C524
C523
C520
C521
BF501
C517
C716
R535
D511
R524
R525
C503
L501
C506
D509
D508
R505
C716
R798
D501
D510
R523
R520
R519
C509
R508
R518
R517
D502
R503
R501
C501
R786
R553
R552
C562
C561
C560
C559
C558
FET501
C539
R541
R551
R550
R549
R548
C557
IC506
R516
R515
R507
R506
R514
R513
R502
D507
D506
R508
C505
D505
D504
D503
R512
R511
R510
R509
D502
C502
C683
C665
C682
C688
C678
C677
C676
R640
R644
C638
C681
C680
BF508
C664
C662
R639
C637
C669
C668
C667
C679
C651
C666
C650
BF506
C665
C663
C661
C660
BF505
C648
C647
C654
C653
BF507
R636
C652
C645
C644
C629
BF504
C628
C643
C642
C627
C641
C640
C625
C626
C624
C639
C638
C623
C637
C649
BF503
C636
C635
C618
C619
C610
C611
C605
C604
C603
C602
C601
C617
C609
C608
C618
C607
C592
C590
C600
C599
C598
R615
R614
R603
C591
C589
C588

MC361/MC351

Component side

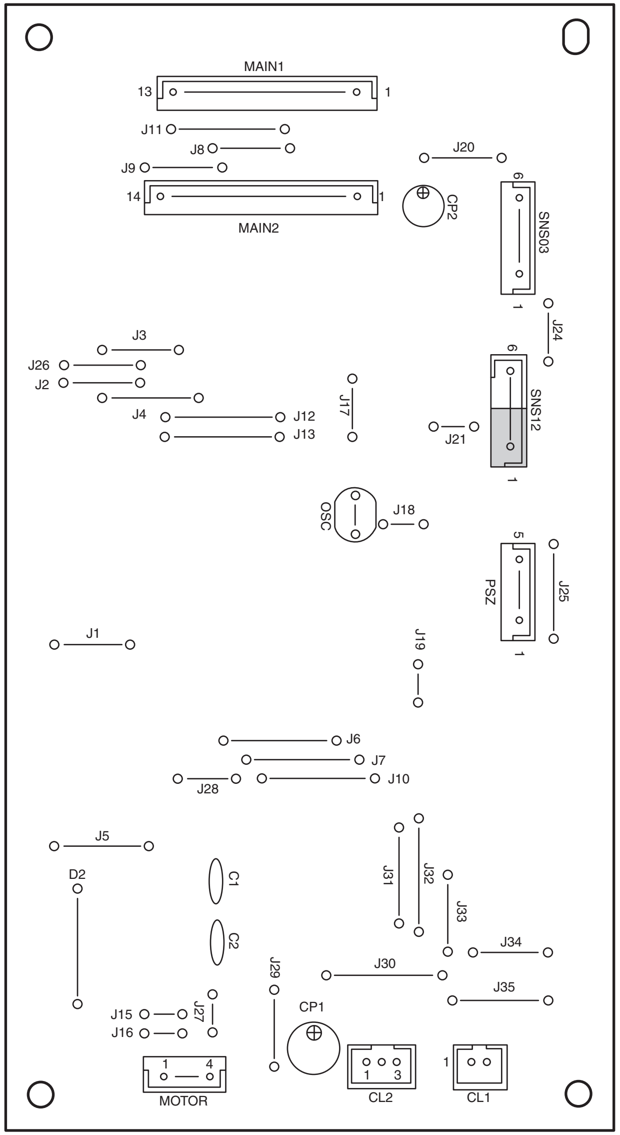

INTH
DUPR
DNS
DTNR
MFPIF
YHEAD
MHEAD
CHEAD
KHEAD
CP6
RGSNS
HPSNS
MPC
MFAN
IDC
2ND
HOP
DCID
REC
HOC
DUC
IC17
IC18
IC19
IC20
IC21
IC15
FLCS1
IC16
IC13
IC11
IC9
IC8
RIC7
IC6
IC3
IC1
IC4
IC5
L1
L2
L3
L4
CP1
CP2
CP4
CP7
CP8
CP9
CP10
OSC1
OSC2
USB1
BF1
BF2
LAN
LED2
D9
D8
R154
DVHEAT
BELT
EXIT
FUSER
POWER
FAN
SHS
IL
DHV
SSNS
SP
DIMM
F1
F2
F3
F4
F5
F6

Soldering side

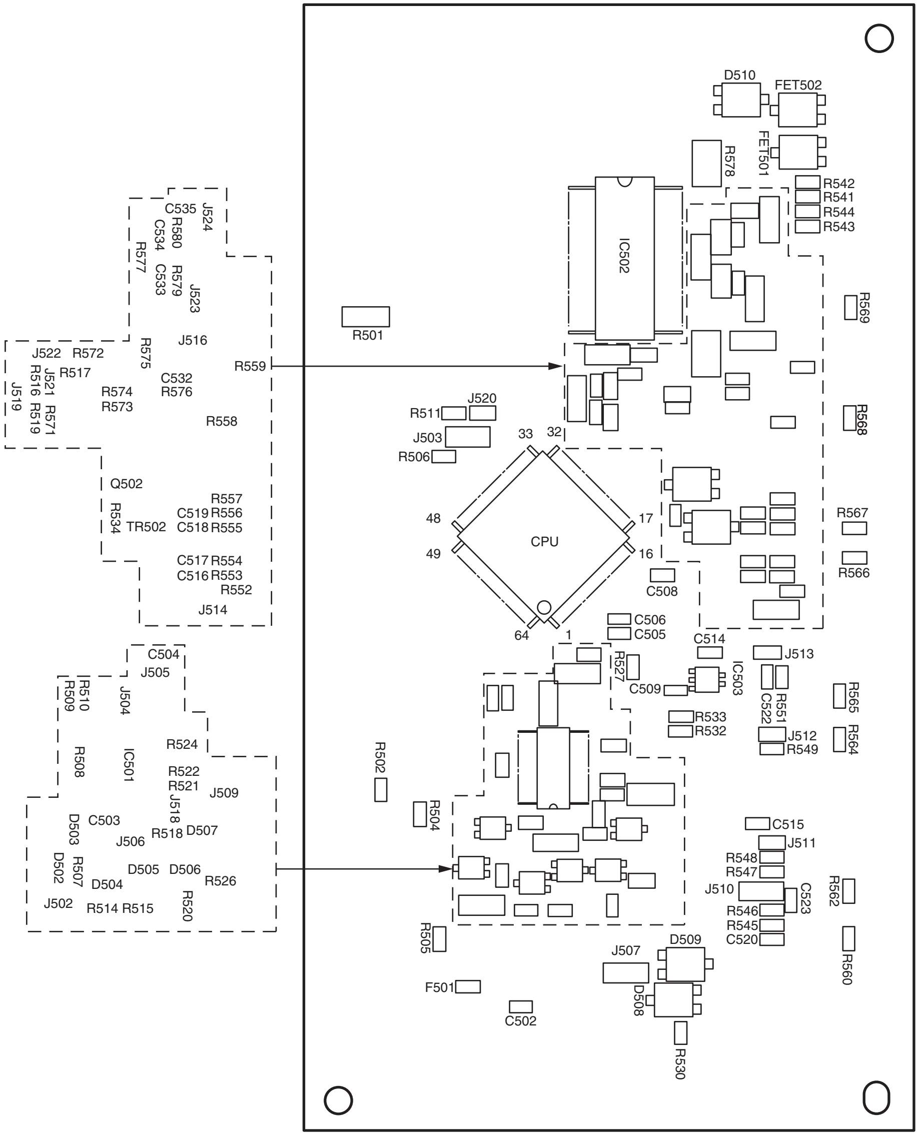


(2) Second tray control board(GOG)

Component side

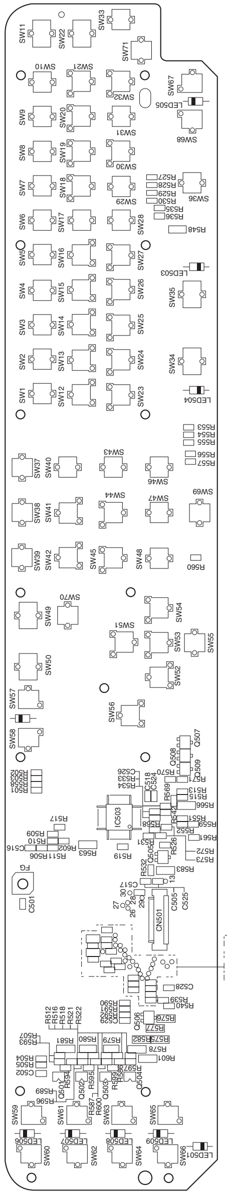

MAIN1
13
1
J11
J8
J9
14
1
MAIN2
J20
CP2
6
SNS03
1
J24
J3
J26
J2
J4
J12
J13
J17
6
SNS12
1
J21
OSC
J18
5
PSZ
J25
1
J1
J19
J6
J7
J10
J28
J5
D2
C1
C2
J31
J32
J33
J34
J29
J30
J35
CP1
J15
J16
J27
1
4
MOTOR
1
3
CL2
1
CL1

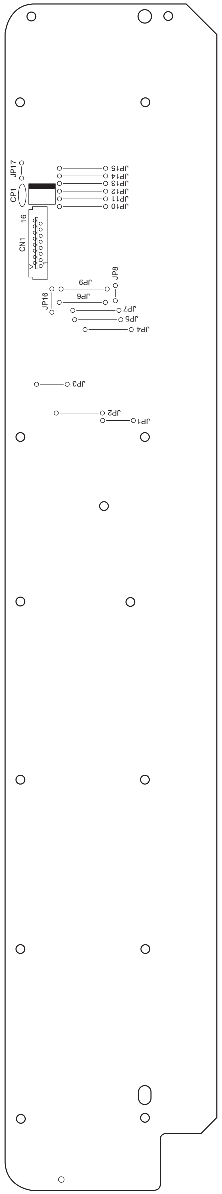
Soldering side


D510
FET502
FET501
R578
R542
R541
R544
R543
IC502
R569
R501
C535
J524
R580
C534
R577
C533
R579
J523
J516
R575
J522
R572
R517
J521
R516
J519
R519
R571
R574
R573
C532
R576
R559
R558
R511
J520
J503
R506
33
32
R568
Q502
R534
TR502
R557
C519
R556
C518
R555
48
49
CPU
17
16
R567
R566
C517
R554
C516
R553
R552
J514
C508
64
1
C506
C505
C514
J513
C504
J505
R510
R509
J504
R527
C509
IC503
C522
R551
R565
R533
R532
J512
R549
R564
R508
IC501
R524
R522
R521
J509
R502
J518
R504
D503
C503
J506
R518
D507
C515
J511
D502
R507
D504
D505
D506
R526
R548
R547
J510
C523
R562
J502
R514
R515
R520
R505
R546
R545
C520
D509
J507
R560
F501
D508
C502
R530

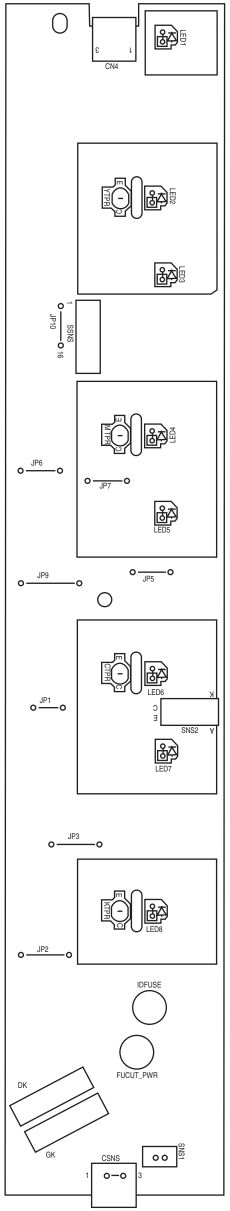
(3) OPE board(OPM)

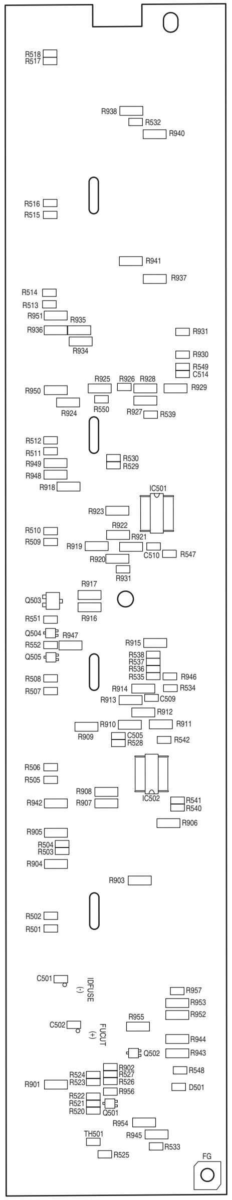
MC561/MC361/MC351


SW11
SW22
SW33
SW71
SW10
SW21
SW32
SW67
LED505
SW9
SW20
SW31
SW68
SW8
SW19
SW30
SW7
SW18
SW29
SW36
SW6
SW17
SW28
R548
SW5
SW16
SW27
LED503
SW4
SW15
SW26
SW35
SW3
SW14
SW25
SW2
SW13
SW24
SW34
SW1
SW12
SW23
LED504
SW37
SW40
SW43
SW46
SW38
SW41
SW44
SW47
SW69
SW39
SW42
SW45
SW48
R560
SW49
SW70
SW51
SW54
SW50
SW53
SW55
SW52
SW57
SW56
SW58
IC503
CN501
FG
C501
SW59
SW60
SW61
SW62
SW63
SW64
SW65
SW66
LED506
LED507
LED508
LED509
LED510

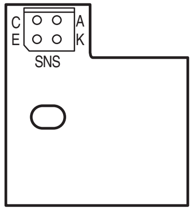

JP17
CP1
16
CN1
JP15
JP14
JP13
JP12
JP11
JP10
JP8
JP9
JP6
JP16
JP7
JP5
JP4
JP3
JP2
JP1

(4) Toner sensor board(ZHJ)

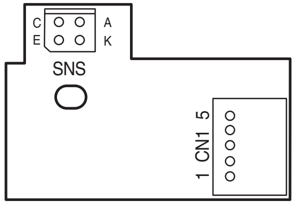

LED1
CN4
3
1
LED2
YTPR
LED3
JP10
SNS
1
16
LED4
MTPR
JP6
JP7
LED5
JP9
JP5
LED6
CTPR
JP1
SNS2
LED7
JP3
LED8
KTPR
JP2
IDFUSE
FUCUT_PWR
DK
GK
CSNS
1
3
SNS1


R518
R517
R938
R532
R940
R516
R515
R941
R937
R514
R513
R951
R935
R936
R934
R931
R930
R549
C514
R925
R926
R928
R950
R929
R924
R550
R927
R539
R512
R511
R949
R948
R530
R529
R918
IC501
R923
R922
R510
R509
R919
R921
R920
C510
R547
R917
R931
Q503
R551
R916
Q504
R947
R552
R915
Q505
R538
R537
R536
R535
R508
R946
R914
R534
R507
R913
C509
R912
R910
R911
R909
C505
R528
R542
R506
R505
R908
IC502
R942
R907
R541
R540
R906
R905
R504
R503
R904
R903
R502
R501
C501
IDFUSE
R957
R953
R952
C502
R955
FUCUT
R944
Q502
R943
R902
R527
R548
R901
R524
R523
R526
R956
D501
R522
R521
R520
Q501
R954
TH501
R945
R533
R525
FG

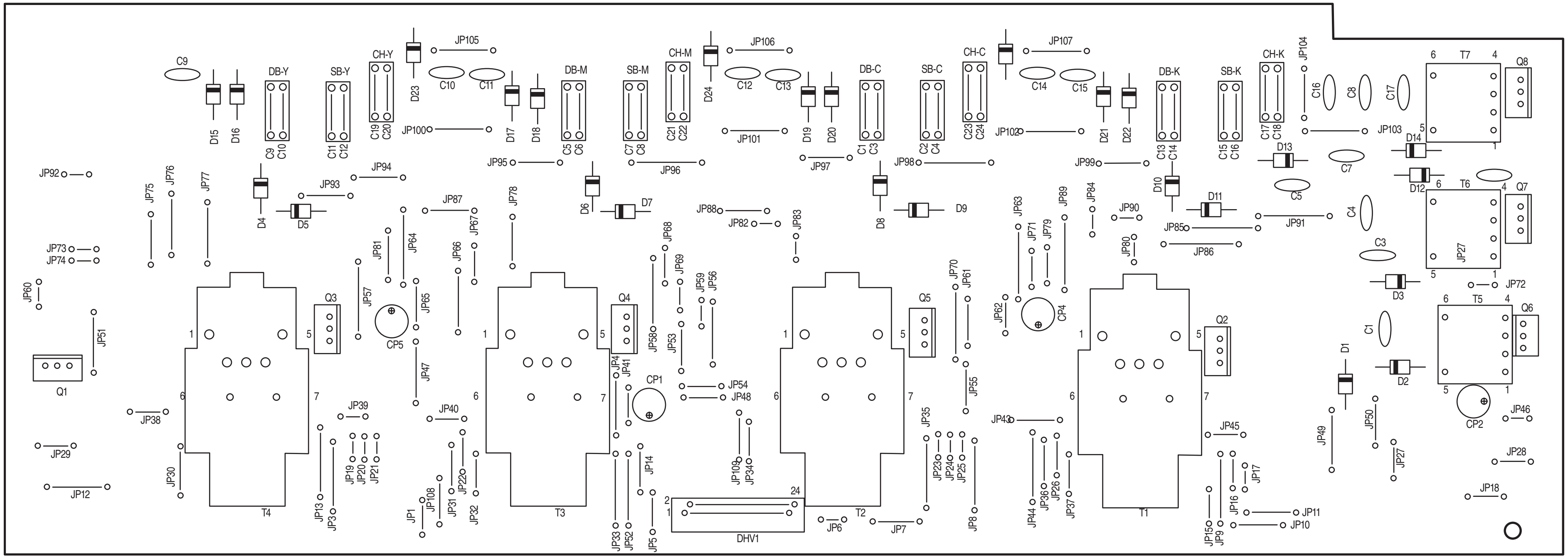
(5) Waste toner sensor PCB



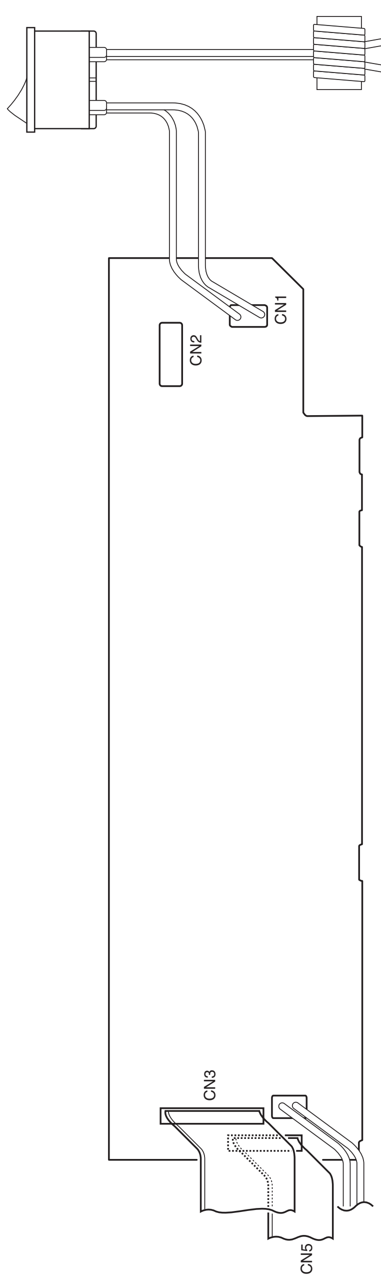
(6) Color adjustment sensor PCB


C
A
E
K
SNS
1 CN1 5

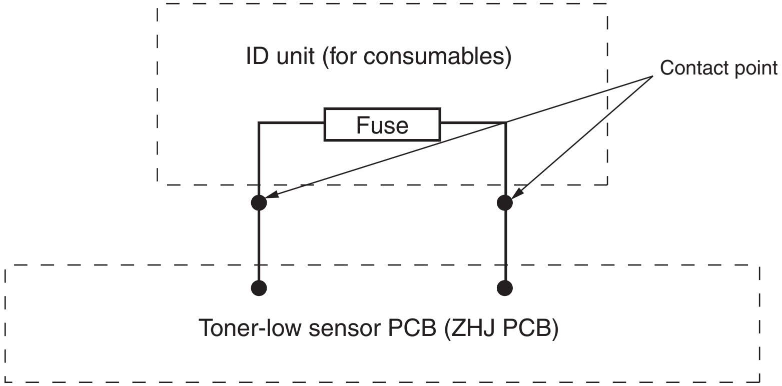
(7) High-voltage power supply PCB

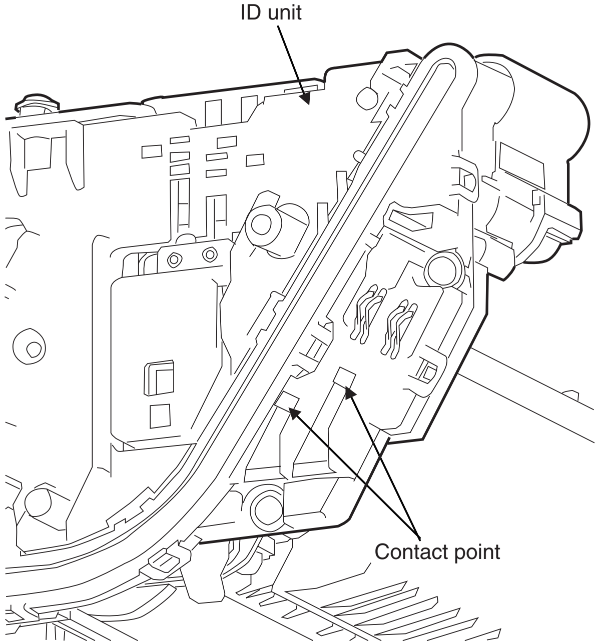

JP105
JP106
JP107
JP104
C9
DB-Y
SB-Y
CH-Y
D23
C10
C11
DB-M
SB-M
CH-M
D24
C12
C13
DB-C
SB-C
CH-C
C14
C15
DB-K
SB-K
CH-K
T7
Q8
6
4
5
1
C16
C8
C17
D15
D16
C9
C10
C11
C12
C19
C20
JP100
D17
D18
C5
C6
C7
C8
C21
C22
JP101
D19
D20
C1
C3
C2
C4
C23
C24
JP102
D21
D22
C13
C14
C15
C16
C17
C18
JP103
D14
D13
C7
JP92
JP75
JP76
JP77
JP93
JP94
JP95
JP96
JP97
JP98
JP99
D12
T6
Q7
D4
D5
JP87
JP78
D6
D7
JP88
JP82
JP83
D8
D9
JP63
JP89
JP84
JP90
D10
D11
C5
JP85
JP91
C4
JP86
JP81
JP64
JP66
JP67
JP68
JP71
JP79
JP80
JP27
C3
JP73
JP74
JP60
JP57
JP65
JP69
JP59
JP56
JP70
JP61
JP62
CP4
D3
JP72
T5
Q6
Q3
Q4
Q5
Q2
JP51
CP5
JP58
JP53
C1
D1
Q1
JP47
JP4
JP41
CP1
JP54
JP48
JP55
D2
JP38
JP39
JP40
JP43
JP45
JP49
JP50
CP2
JP46
JP29
JP30
JP19
JP20
JP21
JP22
JP14
JP109
JP34
JP35
JP23
JP24
JP25
JP44
JP36
JP26
JP37
JP16
JP17
JP27
JP28
JP12
JP13
JP3
JP1
JP108
JP31
JP32
JP33
JP52
JP5
DHV1
24
2
1
JP6
JP7
JP8
T4
T3
T2
T1
JP15
JP9
JP11
JP10
JP18

(8) Low-voltage power supply PCB

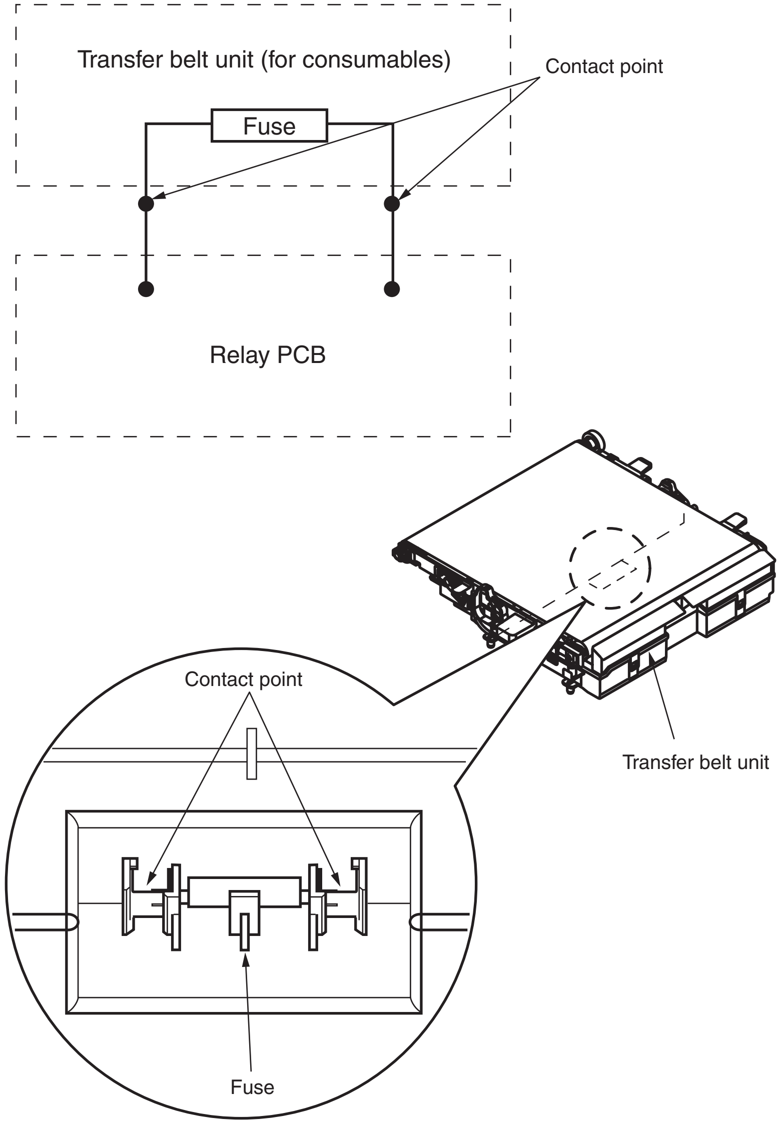

CN1
CN2
CN3
CN5

(9) ID unit


ID unit (for consumables)
Contact point
Fuse
Toner-low sensor PCB (ZHJ PCB)


ID unit
Contact point

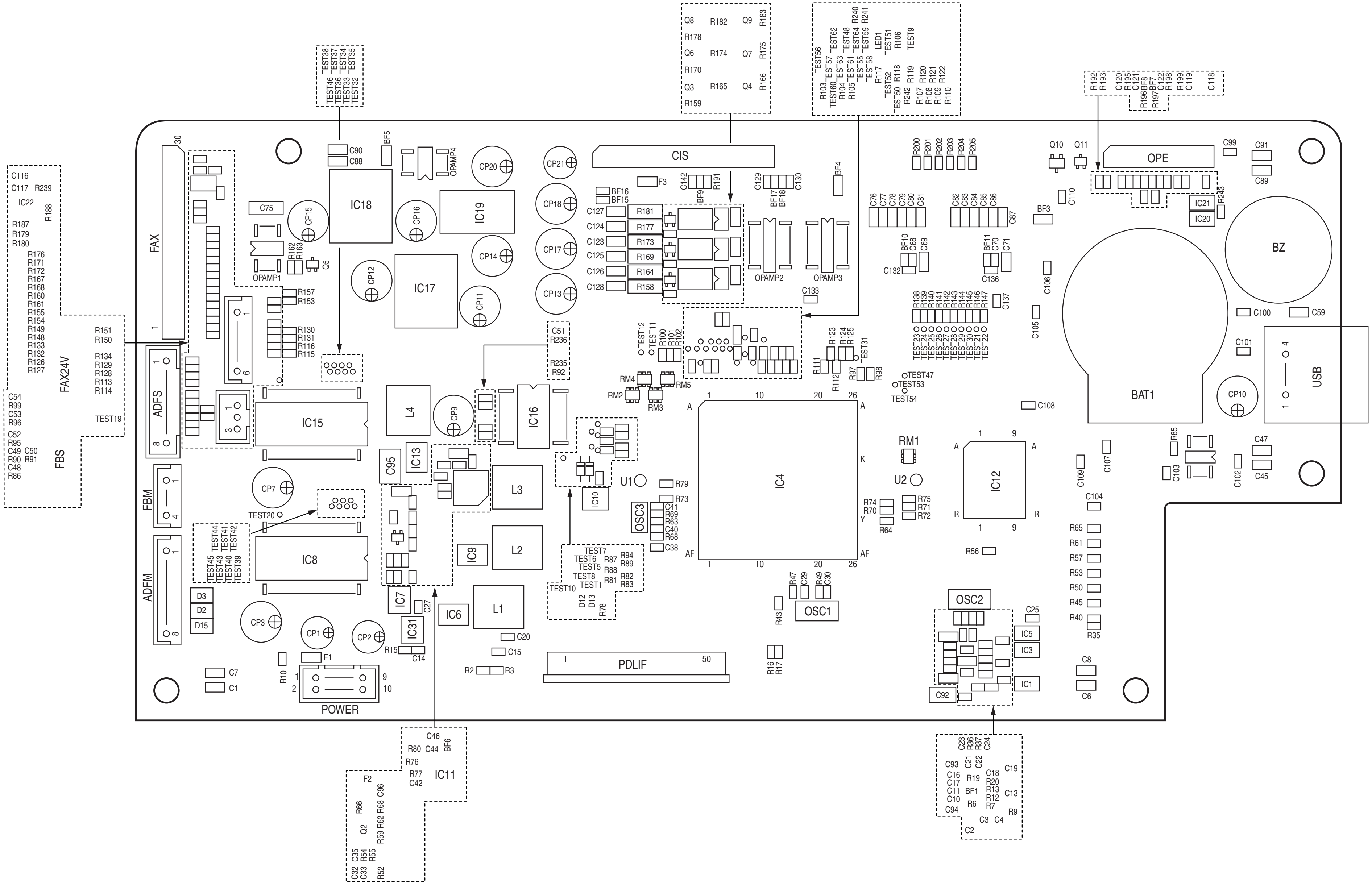
(10) Transfer belt unit


Transfer belt unit (for consumables)
Contact point
Fuse
Relay PCB
Contact point
Fuse
Transfer belt unit

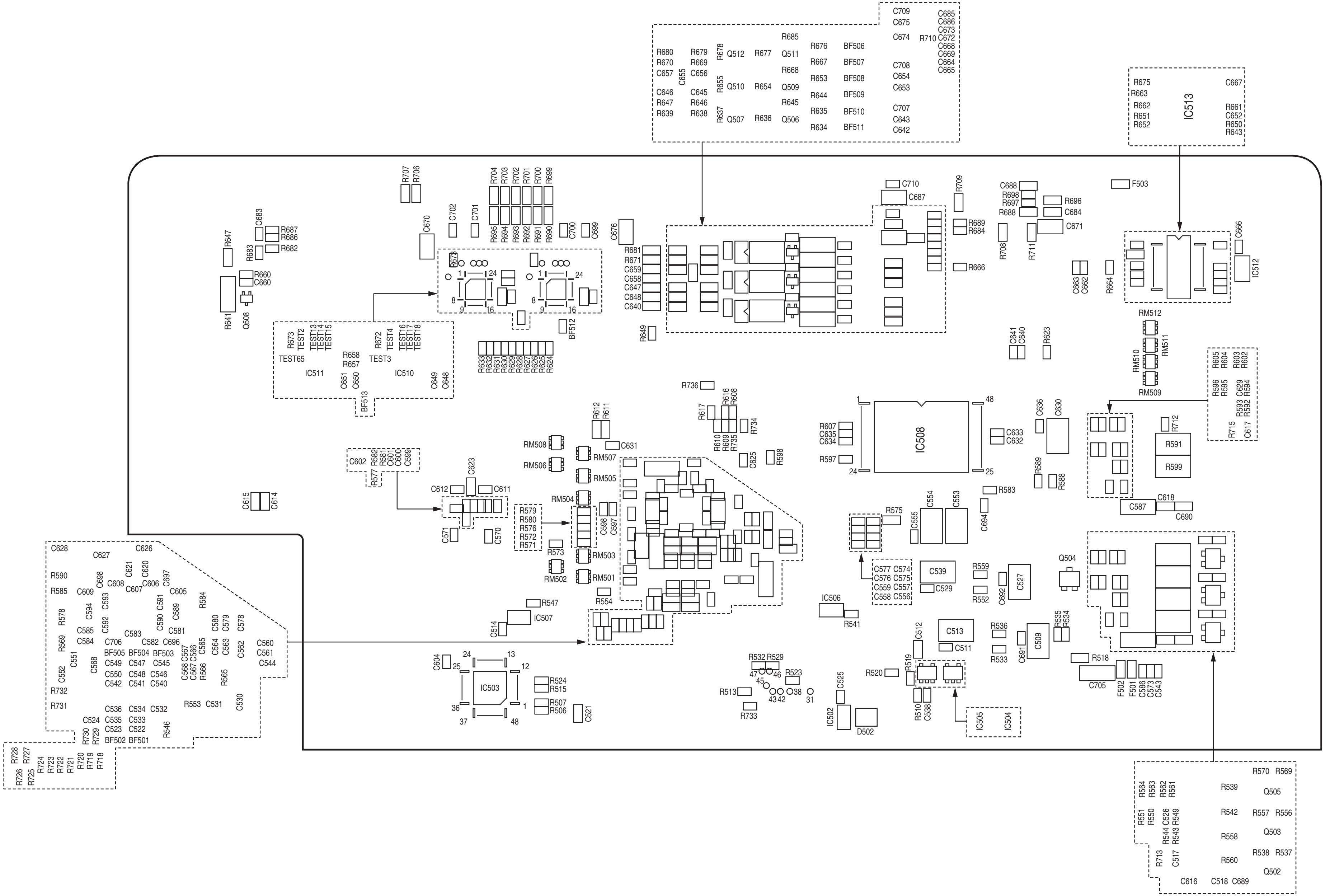
(11) SU board(MHC)

MC561/MC361/MC351

Component side


CIS
OPE
FAX
FAX24V
FBS
ADFS
FBM
ADFM
POWER
PDLIF
USB
BZ
BAT1
IC1
IC3
IC4
IC5
IC6
IC7
IC8
IC9
IC10
IC11
IC12
IC13
IC15
IC16
IC17
IC18
IC19
IC20
IC21
IC31
L1
L2
L3
L4
OSC1
OSC2
OSC3
OPAMP1
OPAMP2
OPAMP3
OPAMP4
RM1
RM2
RM3
RM4
RM5
U1
U2
CP1
CP2
CP3
CP7
CP9
CP10
CP11
CP12
CP13
CP14
CP15
CP16
CP17
CP18
CP20
CP21
C95
F1
F2
F3
D2
D3
D15
Q10
Q11
TEST19
TEST20
TEST47
TEST53
TEST54

Soldering side


C709
C675
C674
C685
C686
C673
R710
C672
C668
C669
C664
C665
C708
C654
C653
C707
C643
C642
R685
R676
BF506
R680
R679
R678
Q512
R677
Q511
R667
BF507
R670
R669
R668
C657
C655
C656
R653
BF508
R655
C646
C645
Q510
R654
Q509
R644
BF509
R647
R646
R645
R639
R638
R637
Q507
R636
Q506
R635
BF510
R634
BF511
R675
R663
R662
R651
R652
IC513
C667
R661
C652
R650
R643
R707
R706
R704
R703
R702
R701
R700
R699
R695
R694
R693
R692
R691
R690
C700
C699
C702
C701
C670
C676
C683
R687
R686
R682
R647
R683
R660
C660
R641
Q508
R674
R681
R671
C659
C658
C647
C648
C640
R649
C710
C687
R709
C688
R698
R697
R688
R696
C684
C671
F503
R689
R684
R666
R708
R711
C663
C662
R664
C666
IC512
RM512
RM510
RM511
RM509
C641
C640
R623
BF512
R673
TEST2
TEST13
TEST14
TEST15
TEST65
R658
R657
R672
TEST4
TEST16
TEST17
TEST18
TEST3
IC511
C651
C650
IC510
C649
C648
BF513
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R632
R631
R630
R629
R628
R627
R626
R625
R624
R736
R617
R616
R608
R612
R611
R610
R609
R735
R734
C625
R598
C631
RM508
RM507
RM506
RM505
RM504
RM503
RM502
RM501
C602
R582
R581
C601
C600
C599
R577
C623
C612
C611
C615
C614
C571
C570
R579
R580
R576
R572
R571
R573
C598
C597
R547
R554
C514
IC507
R607
C635
C634
R597
IC508
1
48
24
25
C636
C630
C633
C632
R589
R588
R583
C694
R712
R591
R599
C587
C618
C690
R605
R604
R603
R602
R596
R595
C629
R594
R593
R592
R715
C617
R575
C555
C554
C553
C577
C574
C576
C575
C559
C557
C558
C556
C539
C529
R559
R552
C692
C527
Q504
IC506
R541
C512
C513
C511
R536
R533
R535
R534
C691
C509
R518
C705
F502
F501
C586
C573
C543
C628
C627
C626
R590
C698
C608
C621
C620
R585
C609
C593
C607
C606
C697
C605
R584
R578
C594
C592
C591
C590
C589
C580
C579
C578
C585
C584
C583
C581
C706
C582
C696
C565
C564
C563
C562
C560
C561
C544
R569
C551
C568
BF505
BF504
BF503
C549
C547
C545
C567
C566
C552
C550
C548
C546
C542
C541
C540
R566
R565
R732
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C524
C535
C533
C523
C522
BF502
BF501
R546
R730
R729
R728
R727
R726
R725
R724
R723
R722
R721
R720
R719
R718
C604
24
13
25
12
IC503
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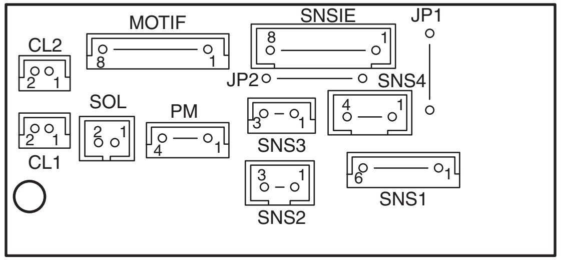
R524
R515
R507
R506
C521
R532
R529
47
46
45
R523
43
42
38
31
R513
R733
C525
IC502
D502
R520
R519
R510
C538
IC505
IC504
R570
R569
R564
R563
R562
R561
R539
Q505
R551
R550
R544
C526
R543
R549
R542
R557
R556
Q503
R558
R713
C517
R538
R537
R560
Q502
C616
C518
C689

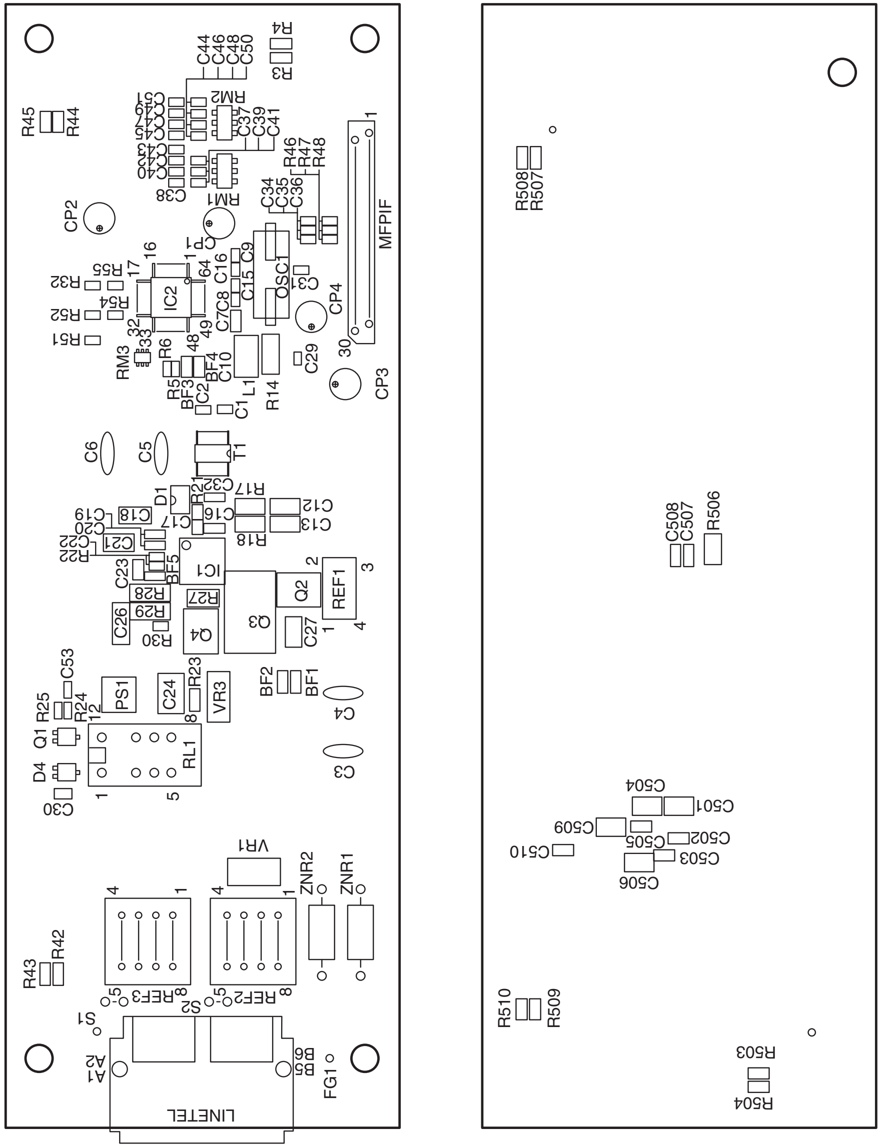
(12) ADF board(MHD)

MC561/MC361/MC351


CL2
MOTIF
SNSIE
JP1
JP2
SNS4
SOL
PM
CL1
SNS3
SNS2
SNS1

(13) FAX board(FMA) (Over sea)

MC561/MC361


MFPIF
IC1
IC2
OSC1
RM1
RM2
RM3
RL1
PS1
REF1
REF2
REF3
VR1
VR3
ZNR1
ZNR2
T1
Q1
Q2
Q3
Q4
D1
D4
L1
CP1
CP2
CP3
CP4
BF1
BF2
BF3
BF4
BF5
S1
S2
FG1
LINETEL
R506
R507
R508
R509
R510
R503
R504
C501
C502
C503
C504
C505
C506
C507
C508
C509
C510

9. APPENDIX

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9.1 List of Initialized range

Setup Parameters		Administrator Setup													Service Technician Setup						Firmware Update			Remarks
		Network factory defaults *1	SD Card initialization *2 (Format open to users)	SD Card format *4 (Common partitions)	SD Card format *4 (PCL partitions)	SD Card format *4 (PS partitions)	SD Card data erasing *5	FLASH initialization *6	Language initialization *7	Reset Settings *8	Erase Privacy Data *9	Main counter reset	Consumable replacement reset	Job log deletion *11	Format SD Card *12	Format Flash ROM *13	Reset Admin Password *14	ALL RESET *15	OKIUSER change *16 [Factory default]	Country code change *17 [Default setting by sales companies, etc.]	CU FW update	NIC FW update	Scanner FW update	
Registration data	E-mail address registration data										CL					CL		CL						
	Access control information registration data										CL					CL		CL						Since the storage location was moved from HDD02: to FLASH0:, data cannot be deleted by SD Card data erasing or SD Card format but can be deleted by Format Flash ROM.
	Speed dial registration data										CL					CL		CL						
	F-code bulletin board document									CL	CL							CL	CL	CL				
	Profile list										CL					CL		CL	CL ※20					
	Network-connected PCs list										CL					CL		CL	CL					
	Job memory registration data									CL	CL							CL	CL	CL				
	Custom demo data (SD)		CL	CL			CL				CL				CL			CL						
	Custom demo data (FLASH)							CL			CL					CL		CL						

Setup Parameters		Administrator Setup													Service Technician Setup						Firmware Update			Remarks
		Network factory defaults *1	SD Card initialization *2 (Format open to users)	SD Card format *4 (Common partitions)	SD Card format *4 (PCL partitions)	SD Card format *4 (PS partitions)	SD Card data erasing *5	FLASH initialization *6	Language initialization *7	Reset Settings *8	Erase Privacy Data *9	Main counter reset	Consumable replacement reset	Job log deletion *11	Format SD Card *12	Format Flash ROM *13	Reset Admin Password *14	ALL RESET *15	OKIUSER change *16 [Factory default]	Country code change *17 [Default setting by sales companies, etc.]	CU FW update	NIC FW update	Scanner FW update	
Registration data	Font (SD card PCL area)		CL		CL		CL				CL				CL			CL						
	Font (SD card PS area)		CL			CL	CL				CL				CL			CL						
	Download font (FLASH)							CL			CL					CL		CL						
	Certificate										CL					CL		CL						
	Language file								CL							CL		CL						
	Auto delivery setup										CL					CL		CL						
	Communication data save setup										CL							CL	CL		CL			
Setup data	Administrator password									FR	FR						FR	FR	FR		FR			
	Paper/Sorting setup									FR	FR							FR	FR		FR			
	Copy function setup									FR	FR							FR	FR		FR			Menu under "Admin Setting" - "Copy Setup"
	Fax function setup (ODC)									FR	FR					FR		FR	FR ※18	FR ※18				Menu under "Admin Setting" - "Fax Setup"
	F-code box									FR	FR							FR	FR	FR				
	Scanner function setup									FR	FR					FR ※19		FR	FR		FR			Menu under "Admin Setting" - "Scanner Setup"

Setup Parameters		Administrator Setup													Service Technician Setup						Firmware Update			Remarks
		Network factory defaults *1	SD Card initialization *2 (Format open to users)	SD Card format *4 (Common partitions)	SD Card format *4 (PCL partitions)	SD Card format *4 (PS partitions)	SD Card data erasing *5	FLASH initialization *6	Language initialization *7	Reset Settings *8	Erase Privacy Data *9	Main counter reset	Consumable replacement reset	Job log deletion *11	Format SD Card *12	Format Flash ROM *13	Reset Admin Password *14	ALL RESET *15	OKIUSER change *16 [Factory default]	Country code change *17 [Default setting by sales companies, etc.]	CU FW update	NIC FW update	Scanner FW update	
Setup data	Print function setup									FR ※	FR ※							FR ※	FR		FR			Menu under "Admin Setting" - "Print Setup"
	Network setup	FR								FR	FR					FR		FR	FR			FR		* [PS Setup] - [L1 Tray] cannot be initialized by "Reset Settings"/"Erase Privacy Data"/"All Reset."
	Mail server setup	FR								FR	FR					FR		FR	FR			FR		Menu under "Admin Setting" - "Network Menu" - "Network Setup"
	LDAP server setup	FR								FR	FR					FR		FR	FR			FR		Menu under "Admin Setting" - "Network Menu" - "Mail Server Setup"
	Secure print server setup	FR								FR	FR					FR		FR	FR			FR		Menu under "Admin Setting" - "Network Menu" - "LDAP Server Setup"
	Management setup (ODC)									FR	FR							FR	FR		FR			Menu under "Admin Setting" - "Network Menu" - "Secure Print Server Setting"
	Time									FR	FR							FR						Value set through "Admin Setting" - "User Install" - "Time Setup" - "Set Daylight Saving" - "Time Zone"
	User Install									FR	FR							FR	FR		FR			Menu under "Admin Setting" - "User Install"
	User Install (fax-related settings)									FR	FR					FR		FR	FR ※18	FR ※18				Menu under "Admin Setting" - "User Install"
	Service technician password																		FR		FR			Must have a specification that doesn’t allow a reset by ALL RESET

Setup Parameters		Administrator Setup													Service Technician Setup						Firmware Update			Remarks
		Network factory defaults *1	SD Card initialization *2 (Format open to users)	SD Card format *4 (Common partitions)	SD Card format *4 (PCL partitions)	SD Card format *4 (PS partitions)	SD Card data erasing *5	FLASH initialization *6	Language initialization *7	Reset Settings *8	Erase Privacy Data *9	Main counter reset	Consumable replacement reset	Job log deletion *11	Format SD Card *12	Format Flash ROM *13	Reset Admin Password *14	ALL RESET *15	OKIUSER change *16 [Factory default]	Country code change *17 [Default setting by sales companies, etc.]	CU FW update	NIC FW update	Scanner FW update	
Setup data	System maintenance																		FR		FR			Must have a specification that doesn't allow a reset by ALL RESET T
	Copy maintenance																		FR		FR			Must have a specification that doesn't allow a reset by ALL RESET
	Fax maintenance (ODC)																		FR	FR	FR			Must have a specification that doesn't allow a reset by ALL RESET
	Printer maintenance																		FR		FR			Must have a specification that doesn't allow a reset by ALL RESET
	JA setting information										CL							CL						As being stored in FLASH1:, it won't be deleted by SD Card data erasing, SD Card format, or even by Format Flash ROM. Because the "Erase Privacy Data" menu is hidden when Job Accounting is set to ON, CL by combined use of "Erase Privacy Data" is limited to when Job Accounting is set to OFF.
Job	Fax Tx data (pending)									CL	CL							CL	CL	CL				
	Fax Rx data (confidential box)									CL	CL							CL	CL	CL				
	Secure print job		CL	CL			CL				CL				CL			CL						
	Encrypted secure print job		CL	CL			CL				CL				CL			CL						

Setup Parameters		Administrator Setup													Service Technician Setup						Firmware Update			Remarks
		Network factory defaults *1	SD Card initialization *2 (Format open to users)	SD Card format *4 (Common partitions)	SD Card format *4 (PCL partitions)	SD Card format *4 (PS partitions)	SD Card data erasing *5	FLASH initialization *6	Language initialization *7	Reset Settings *8	Erase Privacy Data *9	Main counter reset	Consumable replacement reset	Job log deletion *11	Format SD Card *12	Format Flash ROM *13	Reset Admin Password *14	ALL RESET *15	OKIUSER change *16 [Factory default]	Country code change *17 [Default setting by sales companies, etc.]	CU FW update	NIC FW update	Scanner FW update	
Logs	JA log information						CL ***Note*** 1				CL				CL ***Note*** 1			CL						Job Log will be stored into the SD card (when installing a SD card). So that the log will be deleted, if SD card erasing or format.
	Job log information									CL	CL			CL		CL		CL						When SD card is not installed, Job Log will be stored into FLASH1. Therefore, the log won't be deleted by SD Card data erasing, SD Card format, or Format Flash ROM.
	Debug log						CL								CL			CL						CAPM also behave the same way as JA log.
	Email/Internet fax communication log										CL							CL	CL					Since the stored location was moved to FLASH1: it cannot be deleted by SD Card data erasing or SD card format.
	Error log (SD card)						CL								CL			CL						The setting of "Save Job Log" is back to default (Disable), the Job Log will be deleted when turning on the unit after executing SD Card format.
	Error log (FLASH)							CL								CL		CL						Debug logs are not saved by default.
	Dialing history									CL	CL							CL	CL	CL				It is a new menu added to FX750. Logs are stored in FLASH1. Logs are deleted by Erase Privacy Data or All Reset.
	Fax Tx/Rx history									CL	CL							CL	CL	CL				
	Mail address history									CL	CL							CL	CL	CL				Logs are stored in an SD card when accessing it.

Setup Parameters		Administrator Setup													Service Technician Setup						Firmware Update			Remarks
		Network factory defaults *1	SD Card initialization *2 (Format open to users)	SD Card format *4 (Common partitions)	SD Card format *4 (PCL partitions)	SD Card format *4 (PS partitions)	SD Card data erasing *5	FLASH initialization *6	Language initialization *7	Reset Settings *8	Erase Privacy Data *9	Main counter reset	Consumable replacement reset	Job log deletion *11	Format SD Card *12	Format Flash ROM *13	Reset Admin Password *14	ALL RESET *15	OKIUSER change *16 [Factory default]	Country code change *17 [Default setting by sales companies, etc.]	CU FW update	NIC FW update	Scanner FW update	
Logs	Email send address history									CL	CL							CL	CL	CL				The history is retained in the RAM and erased by power OFF.
	IFAX send address history									CL	CL							CL	CL	CL				The history is retained in the RAM and erased by power OFF.
	Fax communication result information									CL	CL							CL	CL	CL				The history is retained in the RAM and erased by power OFF.
Contents	Maintenance counters (life-related)																							The storage location was moved from SD05: to FLASH1:. There is no way to delete logs.
	Main counter (dealer statistics-related)											CL						CL						
	Consumable replacement (related to the main counter)												CL			※24								
	Scanner counters (scanned sheets, ADF scanned sheets)											CL						CL						The number of scanned sheets is also reset at the same time. (It is a main counter, and the unit has another counter, maintenance counter, too.)
	Print statistic password *23															CL		CL			CL			
FW	Scanner unit F/W (FAX included)																							
	NIC-F/W (web page included)															CL								

Setup Parameters		Administrator Setup													Service Technician Setup						Firmware Update			Remarks
		Network factory defaults *1	SD Card initialization *2 (Format open to users)	SD Card format *4 (Common partitions)	SD Card format *4 (PCL partitions)	SD Card format *4 (PS partitions)	SD Card data erasing *5	FLASH initialization *6	Language initialization *7	Reset Settings *8	Erase Privacy Data *9	Main counter reset	Consumable replacement reset	Job log deletion *11	Format SD Card *12	Format Flash ROM *13	Reset Admin Password *14	ALL RESET *15	OKIUSER change *16 [Factory default]	Country code change *17 [Default setting by sales companies, etc.]	CU FW update	NIC FW update	Scanner FW update	
FW	Factory adjusted values (registration adjustment etc.)																							Some of these are able to set by service personnel.
	Stored images									CL	CL							CL	CL	CL				
	Factory adjustment (gamma correction data)																							
	9 cpm for Spain																	CL	CL	CL				

CL : Deleted after execution

FR : Reset to the factory defaults after execution

Note 1: Only MC561

*1 : Network factory defaults: "Admin Setting" - "Network Menu" - "Reset to factory defaults"
: It is executed to reset only network settings to the factory defaults make settings again due to unsuccessful network access.

*2 : SD Card initialization: "Admin Setting" - "Management" - "SD Memory Card Setup" - "Initialize"

*3 : Unassigned

*4 : SD Card format: "Admin Setting" - "Management" - "SD Memory Card Setup" - "Format"

*5 : SD Card data erasing: "Admin Setting" - "Management" - "Storage Maintenance Setup" - "Erase SD Memory Card"
: It is not executable when Job Accounting is operating.
: Users must execute this menu with "Erase Privacy Data" before disposing of the device to prevent personal information from leaking. Instead of the said timing, users must execute this menu when disposing of SD cards after replacement.

*6 : FLASH initialization: "Admin Setting" - "Management" - "Flash Memory Setup" - "Initialize"

*7 : Language initialization: "Admin Setting" - "Management" - "Language Maintenance Setup" - "Initialize"
: This menu is executed when users want to delete downloaded language data and reset the display language back to English temporarily.

*8 : Reset Settings: "Admin Setting" - "Management" - "Reset Settings" * Not displayed in MPS mode.
: This menu is executed to reset the device settings (including network settings) back to the defaults temporarily and make settings again when device operation is unstable, etc.

*9 : Erase Privacy Data: "Admin Setting" - "User Install" - "Erase Privacy Data": * Not displayed in MPS mode or when Job Accounting is operating.
: Users must execute this menu with "SD Cared data erasing" before disposing of the device to prevent personal information from leaking.

*10 : Unassigned

*11 : Job log deletion: "Admin Setting" - "Management" - "Job log deletion"
: This menu is executed when users want to delete only the usage history of the device.

*12 : SD Card format: "Service Menu" - "System Maintenance" - "Format SD Card"

*13 : Format Flash ROM: "Service Menu" - "System Maintenance" - "Format Flash ROM" * Not displayed in MPS mode.

*14 : Reset Admin Password: "Service Menu" - "System Maintenance" - "Reset Admin Password"
: This menu is used to initialize only the administrator password by support when users forget the administrator password.

*15 : ALL RESET: "Service Menu" - "System Maintenance" - "ALL RESET" * Not displayed in MPS mode.
: This menu must be executed to delete customer information before dealers etc. lend devices to the next customers.

*16 : OKIUSER change: "Service Menu" - "System Maintenance" - "OKIUSER" * Not displayed in MPS mode.

*17 : Country code change: "Service Menu" - "Fax Maintenance" - "Country Code"

*18 : Settings are initialized when their defaults are changed due to changes in destinations or country codes.

*19 : Only "Email edit fixed phrase" under "Scanner Setup" - "Mail Setup" is initialized.

*20 : When the destination setting is changed from an option for Japan (such as "JP1" and "JPOEM") to an option for outside Japan (such as "ODA"), entries in Japanese are cleared.
If a profile name is in Japanese, parameters except strings are also initialized at the same time.

*21 : Unassigned

*22 : Unassigned

*23 : No means is provided to change the setting of the print statistic password.

*24 : Executing Format Flash ROM displays the total number of replacement retained in the CU FW of the device.
"Consumable replacement information (toner/drum/belt/fuser)" in a print statistic report shows a calculation result of the formula "actual PU replacement - CU display difference = replacement information."
Format Flash ROM clears the value of "CU display difference."

9.2 Firmware Information

9.2.1 ROM control numbers

(1) Printer ROM

MC561/MC361/MC351

The following firmware are stored into CU/PU board(CLP).

Firmware (PJL format)	Epsilon #	Notes
CU FW (Loader FW)	44614401FY02	FLCS1(PCB Assy.-CLP)
CU FW (Main FW)	44614501FY02	IC15(PCB Assy.-CLP)
PU FW	44614501FY04	IC15(PCB Assy.-CLP)
Network FW	44614501FY03	IC15(PCB Assy.-CLP)
IM FW (Deep Sleep Control FW)	44553102FY01	IC10(PCB Assy.-CLP)

(2) Scanner ROM

MC561/MC361/MC351

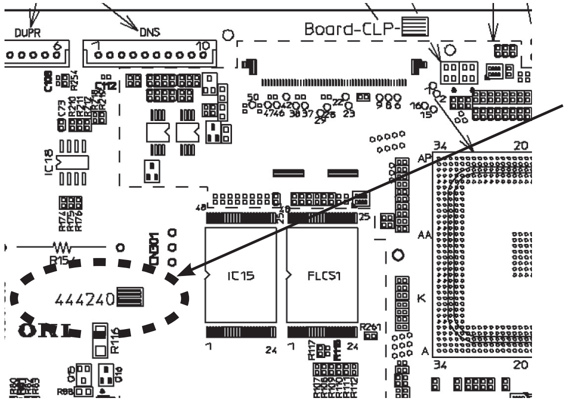
The following firmware are stored into MHC board.

Firmware (PJL format)	Epsilon #	Notes
Scanner FW	44626101FY02	Loader : IC16(PCB Assy.-MHC) Main FW : IC508(PCB Assy.-MHC)

9.2.2 Stamp of maintenance board indication

A designated article number is stamped in the area for maintenance board indication on the CU/PU board(CLP) in accordance with the 44424001YA.

MC561/MC361/MC351



Designated stamping location

9.3 Instruction of PU FW update

(1) Print the menu map and check the current PU FW version of the printer on it.

(2) Prepare the applicable file of the following in the host PC, and connect the printer and the host PC with the USB cable.

	PU FW Version	Drawing No.	
	00.06.12 ~	44614501FY04	Rev.5 and later

(3) Turn on the printer and wait until “ONLINE” appears on the operation panel of the printer.

(4) Send the file prepared by (2) to the printer by using Maintenance Utility.

(5) Wait until the LCD of the operation panel displays “PASSED.”

(6) Turn off the power of the printer.

(7) Turn on the power of the printer.

(8) Print the menu map and check to make sure that the PU FW version has been updated.